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ALL STORIES NEW

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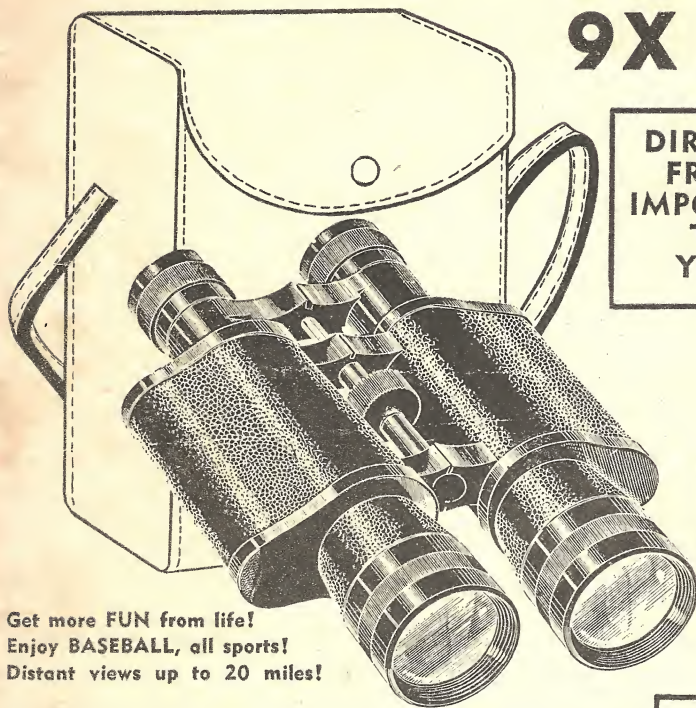


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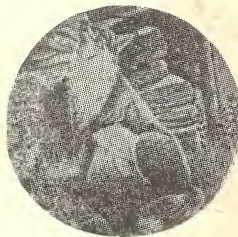


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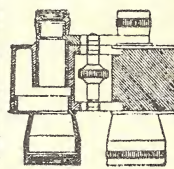
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Volume 3

November, 1954

Number 3

## NOVELETS

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ROBERT W. LOWNDES, Editor

*Cover by Frank Kelly Freas*

*illustrations by Emsb, Freas, Orban, and Luton*

SCIENCE FICTION QUARTERLY, November, 1954, published February, May, August, and November, by COLUMBIA PUBLICATIONS, INC., 1 Appleton Street, Holyoke, Mass. Editorial and executive offices at 241 Church Street, New York 13, New York. Entered as second class matter at the Post Office at Holyoke, Mass., under the Act of March 3, 1879. Single copy 25¢; yearly subscription \$1.00. Entire contents copyright 1954 by COLUMBIA PUBLICATIONS, INC. Manuscripts must be accompanied by self-addressed envelopes to insure return if not accepted, and while reasonable care will be extended in handling them, it is understood that they are submitted at author's risk. Printed in U. S. A.



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## A Department of Letters and Comment

### *As I Was Saying...*

**"S**O-AND-SO is a good editor, but why doesn't he print good stories?" I've seen this statement innumerable times in fan magazines and personal correspondence—either as you read it above, or in some variation which comes out to the same general idea. And I don't doubt that I said it or wrote it often enough myself, back in my BGS period (before General Semantics) when it had never occurred to me that there might be as many different meanings for "good stories" as there were people using the phrase. Nor had I realized that some of these meanings might be mutually exclusive. Why, a good story was—well, it was *good*! Any intelligent person who read it could *see* that it was good! And so on.

The question is far from passe, and it was the subject of a talk I gave before a meeting of the New York Science Fiction Circle some months ago. We started off with the awareness that

the phrase "good story" did *not* mean exactly the same thing to each and every one of us. We agreed, for the sake of discussion, to ignore these differences for the time being. What, then, were some of the factors operating against an editor's using "good" stories?

We broke the road-blocks down into three main categories: the publisher; the editor himself; the writers.

First of all, I noted that a particular publisher might be trying to sell his magazines to an audience with quite different tastes than ours. In that case, he might lay down a policy for the magazines which, to our way of thinking, allowed for "good" stories only by accident. Obviously, an editor who operates under such a policy cannot be blamed for not doing what he is not supposed to do in the first place. In fact, if he is catering to an audience which is not interested in what we con-

[Turn To Page 8]



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sider "good" stories, then the fewer "good" stories he publishes, the better. (At this point, we have to duck under our agreement for a moment, and realize that a magazine which any particular one of us—or even all who read these words—considers very bad, because it uses few or no "good" stories, may actually be filling a very definite need. On its own level, it may be an excellent magazine.)

However, for the purposes of our discussion, we had to assume that any publisher who laid down a rigid policy, restricting the editor far more than his own taste and judgement would otherwise restrict him, was inhibiting the publication of "good" stories. The editor in question had to return many "good" stories, simply because they did not fit into the policy he was hired to execute.

Then, of course, there was the matter of budgets. An editor who is free to equal or better the highest rates his competitors can offer is obviously going to see more potential "good" stories, or see them earlier, than his more conservatively-budgeted colleagues.

(I say "potential good stories", because of course no story is good or otherwise until the editor has read it.)

I said this above with a smile, and paused for laughter. But there's more than mere editorial delusions of divinity in that remark. A story exists as an event on the level of human communications. Unlike other types of events, which happen and can be shown to have happened whether anyone sees them or not, various human beings have to *agree* before a given sheaf of paper with words impressed upon it in such a manner as to be legible, can be labelled, "good story".

But this is about as far as the buck can be passed to the publisher. What about editors who are not restricted by company-made story-policies, and who can compete with the rest of the field on rates? There are some well-known editors, handling respected magazines.

who come under that heading; yet, these gentlemen have never made any secret of the fact that they do not find it easy to get "good stories".

So, let's turn the eyeglass on the editor—not any particular editor—and see if we can determine how and where he might get in his own way. He too knows what a "good" story is, and he agrees with our definitions. We cannot explain anything by alleging he has poor taste, or is subject to spells of imbecility, etc., because that won't explain what we really want to find out. That type of explanation explains so much that it explains nothing.

**FIRST THERE** is the matter of the editor's personal biases.

Now as I have stated before, *bias* does not mean *prejudice*. Prejudice means making a judgement *before* you've seen the evidence. I've been accused of being prejudiced against Ray Bradbury's stories, for example. If this were true, then I'd say that "Fahrenheit 451" was a bad book, simply because it was by Bradbury, although I haven't read the story.

*Bias*, on the other hand, means a predilection toward or against something. I'm biased against Bradbury simply because such a large percentage of *those stories of his I have read* did not satisfy me that these stories were worthy of the adulation they received. This bias has made me reluctant to try reading this highly-praised novel, "Fahrenheit 451", so far; when I do read the book, the bias will make me demand more of it, before I can like it, than I might demand of some author of whose works I was biased in favor, and whose latest story I couldn't wait to read.

We all have biases of some kind or other, and many biases are shared among large groups. A fan club usually springs out of a group of people's bias in favor of science fiction. Sometimes we can be aware of our biases,

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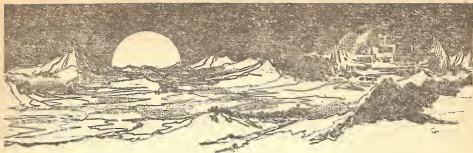
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Radioactive garbage would soon make the moon uninhabitable; the colonists were under no compulsion to leave, of course. In fact, they could block the decision to make the moon a dump, too, if they wanted; on the other hand, Earth was under no obligation to give them credit at any time . . .

# MOON DANCE

Novelet of the Day After Tomorrow

by Wallace West

illustrated by Kelley Freas

**I**N TIME with a waltz tune drifting from the cafe's loudspeaker, Robin Singleton drew two large crosses on the bar with the wet bottom of her syntini glass. "So it's final, Tom? They're really turning the Moon into a dump?"

"Yes," answered the bartender as he waited, towel in hand, to wipe up the mess she was making. "Lou just showed me the official order."

"It's like rubbing the bloom off a peach," the girl sighed.

"Or pulling wings off a butterfly," old Tom nodded glumly.

"When I was a kid I used to dance in our garden on moonlit nights," she almost whispered. "Took my clothes off and rolled in the dew, sometimes—just because everything was so damned lovely. In those days I was going to

grow up to be another Isadora Duncan, you see."

"How come, then, that you became a physicist? I've always wondered."

"That was the Moon's fault, too, plus the fact that I was good at math in college. I wanted to help develop an atomic drive... Make it easy for folks to get up here."

"You did help, too," old Tom recalled. "Your positronic..."

"Maybe," she cut him off with a shrug of her slim shoulders. "But as soon as Earth began using fissionables in gobs I had to get out of the lab. Contracted The Allergy; broke out in hives as big as silver dollars—and in the wierdest places!" She shuddered, drained her syntini and wrinkled her pert nose at its taste of crude oil.

"Tough," Tom agreed with the full sympathy that one has-been gives another.

"I worked as a dancing teacher for a while after that, but the radiation-level kept building up everywhere and my hives came back. Who wants to dance with a partner who is all over spots?"

"Then I read that you Moonies were having trouble getting about. That gave me a crazy idea: if you danced instead of walking, you might be able to stay on your feet. I talked things over with the Arthur Murray Corporation and it agreed to back me in opening a studio; so here I am."

"You certainly helped *me*," Tom chuckled. "When the doctors first sent me up here, I'd almost get my legs tangled around my neck every time I moved."

"There was practically no radiation here in those days," Robin went on, "so I got along fine. After I finished training the colonists the tourists kept me busy. Folks always want to dance when they go on vacation, and I showed them how to do it without bumping their silly heads on the ceiling. But now..."

"Now most tourists go right on to Mars or Venus," Tom nodded.

"And I can't blame them, what with whole scow-loads of hot stuff banging down everywhere. But the studio and I are both on our last legs as a result."

"When I was a kid," said old Tom as he took off his dark glasses and polished them on the end of his tie, "the Moon was just another place to get to, someday. But then I became a rocket test pilot and took up the first ship to circle her... I guess you know all about that, though..."

"Everybody knows about that," Robin smiled at him. Yes, everyone in the solar system knew the story of the man who had brought a crippled ship and its insane crew safely back to Earth; the man who had fought his way out of blindness and angina to go on the First Mars Expedition; the man who had done so much to settle the Martian War and to establish United Stars; the man who still refused to retire, although his leaky heart could keep pumping only on a low-gravity planet.

"That was 'way back in '75," he dreamed, as old men will. "We hadn't learned, then, what space travel could do to the human mechanism. We went up too fast and wrecked our hearts; we looked out of unshielded portholes and ruined our eyes, or addled our brains. But we couldn't help looking. The Moon was so damned lovely, as you said."

"So now they're going to trade her in on a stinking little space platform and turn her into one great, empty, isotopic itch!" The girl's warm brown eyes filled with tears. "I can't take it, Tom. Give me another drink and mix one for yourself; put real gin in them, too. We'll drink a proper toast to Diana before those fools at New Washington make a hag of her!"

AS THE old man busied himself with bottles and ice the cafe door burst open and a miniature cyclone



danced in. "Hey, Pop," it yelled. "There's a cat from the mine outside. The driver says I can ride out with him an' come back with Bill at Oh sixteen. Can I go, Pop? Can I, huh?"

"Looks as if you were halfway there already, Sadie." Tom grinned at his 14-year-old daughter's wild enthusiasm. "How about your lessons, though?"

"Yah! Lessons!" She saw her father's jaw tighten and added hastily: "I'll study 'em drivin' out, and Bill will help me with 'em comin' back."

"Fair enough."

The cyclone departed, whooping.

"Sadie's getting out of hand, I'm afraid." Tom mopped his balding head with the bar towel. "She's not happy these days unless she's prowling around atomic machinery, or hobnobbing with a new consignment of Incors. She'd be a lot different if Jeanne... if her mother had lived. Can't you tone her down a bit, Robin?"

"I've tried often enough. Know what she always says?"

"She says: 'Yah! Dancing teachers!'" Tom laughed ruefully.

"Bill Filgus is the only person who can handle your tomboy; she worships him because he's an engineer, and she's determined to become one. When she got 'too tough, once, I saw him spank her until her little bottom must have blistered. And she took it! Even apologized to him through her sniffles. She'd have cracked my helmet the next time I went topside if I had tried anything like that."

"I suppose so. But keep her out of Lou's way as much as you can; she's growing up fast and I don't like the way that son looks at her... Well, here's our toast to the Moon."

They touched glasses. The drinks tasted flat despite the gin.

"I don't like the way Lou looks at Sadie, or at me, or at things in general," Robin snapped. "I don't like the way he plays games with Mayor Wheaton and the mine owners; I don't

like the way he has blocked all of your efforts to make Moon Base a civilized place instead of an imitation Wild West outpost; I don't like anything about him. Which reminds me..." She slipped off the stool, smoothed the pleats in her shorts and buttoned the V of her white blouse. "I have to give the wretch a lesson in five minutes."

"Why?" Tom leaned pudgy elbows on the bar and unashamedly admired her flat hips and long—a trifle too muscular, but thoroughly satisfying—dancer's legs.

"With tourists staying away in droves since most sightseeing trips have been cancelled, about the only thing that keeps me eating is that that big lummoX likes to paw me, has plenty of time to kill with his hotel half-empty, and won't admit he'll never learn to dance in this world or any other.

"Bye now, Tom. Ask Bill to drop in as soon as he gets here." She kissed fingertips at him and departed in perfect time with a tango that was drifting softly from the speaker.

There was something faintly "out of drawing" about each detail of her physique, Tom reflected as his eyes caressed her retreating back, but the end product was sheer moonlight and roses. Back in '75, now! He sighed and got busy polishing glasses for the rush that would start as soon as the ship from Earth got in.

## 2



FOXTROT was playing on the studio jukebox as she approached. Robin's heart leaped; perhaps Marie had inveigled the hotel owner into dancing with her this once. But no such luck—Robin's one remain-

ing assistant was in the brawny arms



of Harry Feldman. Harry was a mine superintendent who took pride in having a Silver Medal diploma from the Arthur Murray Corporation; he dropped in for a brush-up lesson whenever he was at Base.

Lou was there, too. Thick legs apart and thick head thrown back, he was standing before a faded astronomical mural that adorned one of the studio walls. For the fiftieth time he was lecturing his weasel-faced cashier and bodyguard, Mike, on the wonders of the solar system.

"That there planet 'way up in the corner is Pluto," the big man was explaining to the little one, as to a child. "Stars has a big expedition out there. It's tryin' to slow down Pluto in its orbit."

"Orbit?" puzzled his stooge.

"An orbit's the path a planet takes 'round the sun."

"What they doin' that for, boss?"

"So Pluto'll drop in closer to the sun and warm up, dope. Then President Brown thinks 'Stars can plant a colony on it. Earth's crawlin'...." Characteristically, Lou left the sentence unfinished.

"Yeah?" Mike contemplated overpopulated, raw materials-hungry Earth with glee. "Then why don't 'Stars send more people to Venus...out to Wildoatia?"

"'Cause the Incors won't accept only certain kinds of immigrants, see?"

"Tell me again that long word that means Incor, boss. Incorig...some-thin'."

"Incorrigible, stupid. They got that name 'cause they're anti-social; don't like to take orders from nobody. When

a lot of Incor bigshots got caught dead to rights down on Earth for stirrin' up the war with Mars, back in '95, they made a deal with 'Stars, see? They said they wouldn't raise no more hell for a while if they was shipped out to Venus, an' let alone to do just as they damn' well pleased."

"Gee!" Mike's mouth hung open as he drank in every word.

"Well, 'Stars was on a spot. It had just been organized and it was pretty shaky—to say nothin' about Earth havin' used up most of its coal an' oil and uranium an' other fuels. 'Stars knew there was a lot o' free U-235 on Venus, and the Incors said they'd find it. So th' first bunch of 'em went to Venus. But they didn't join. 'Stars; no, sir! They set up the Free State of Wildoatia, and since then they only let in folks who want to sow wild oats."

"Show me where Wildoatia is again, boss, on that there pitcher."

"Excuse me." Robin had had enough of this moronic gabble. "Time for your lesson."

Mike leered at her and slouched away. Tilting a chair against the wall, he slumped into it and dragged a stereocomic out of his pocket.

**T**HE TOUGH-GUY mask that Lou always assumed when talking to his henchman whipped away. It was replaced by that of a debonair man of the world—a man who played host to politicians, scientists, tri-di stars, and tiara-crowned dowagers in what once had been the system's most luxurious resort hotel.

"Ah!" he beamed. "Miss Singleton. What a pleasure."

"Did you practice that rhumba box step?" She was all business.

"I did." He rubbed a bump on his forehead. "But I still couldn't keep my feet on the floor."

"That's because you don't flex your knees; you bounce stifflegged, like a wooden monkey on a stick." She gave him a professional frown.

"I know." He played abject. "It's a continual source of embarrassment. I'm supposed to be ye compleat hotel man, yet on my own dance floor I look like..."

"Most of your guests don't look much better." She had to chuckle at thought of the sights she had seen on evenings after unwary crowds of vacationers arrived at Moon Base. "Low-G does queer tricks. Rule number one is never to get up on your toes: you're likely to start flying. Glide instead... like this."

She demonstrated, while Lou wondered whether she could possibly look more attractive with her clothes off.

"You're not paying attention," she flushed. "Watch my *feet*. Here. Let's try it." He reached for her but she held him at arm's length. "Now! Forward, brush... No. No! Always step forward with your left foot! Again... Forward, brush, side, together. Backward, brush, side, together."

"That's better," she lied after a few tries. "With the music, now. I know you're tone-deaf, so just listen to the beat of the drums underneath the melody. One, two, three and four. Dum, dum, dum-te-dum." She slipped into his arms and, by main strength, kept his feet on the floor for five exhausting minutes.

"It's no good," he puffed at last. "Maybe we should try a waltz, or...?"

"No waltz! I'd feel like a murderer. Guess I'll have to invent a dance where only your arms and, uh, hands move. I'll call it Lou Ruppen's Ripple."

"Something like a Hindu ritual dance," he surprised her by saying as they resumed a teetering course. "It might make a hit with the tourists. But I couldn't chance it; didn't the temple guards kill any dancer who got out of time?"

"They sometimes compromised by cutting off the offender's toes," Robin grimaced. "I may have to resort to that if you step on mine again."

Lou apologized fulsomely but she

hardly heard him. She had begun to wonder whether he was playing with her... whether he really couldn't dance better than she could. It required positive genius to mangle Terpsichore so consistently.

He switched subjects. "What are you going to do when?"

"Can't Moon Base appeal that evacuation order?"

"Won't do a bit of good; Mother 'Stars knows best."

"I'll manage, then." Robin's chin came up. "How about you?"

"I have another hotel in me. It will make this dump look like... think I'll call it 'The Nirvana.'"

"You're lucky to have money to start over."

"New Washington will pay me through the nose for this one—right of eminent domain and all. They'll pay you for the studio, too, and buy you a ticket home."

"Not home... Hives!" The corners of her wide mouth turned down. "Brrr!"

"How about Mars?"

"Martians know how to dance when they're born, confound them."

"Pluto? You could brush up your nucleonics."

"I checked on that before I came up here. The Expedition is shoving bulldozer beams at every projection on the planet; radiation level is soaring. No Allergics need apply."

"Hmmm. They wouldn't use you on the new space platform for the same."

"That's right. Maybe I'll start a quiet little filling station on some asteroid," she smiled forlornly. "When ships stop in for fuel I can sell hot-dogs and antiques to the passengers."

HE REGARDED her seriously and forgot to keep out of step. "That isn't as crazy as it sounds. If we'd stop splashing the last of our fissionables around on Pluto, and get at the job of colonizing the moons of the outer planets, fuel dumps would have to



be set up along the way. But it's too soon for that." Lou glanced at Marie and her partner, saw them in animated conversation, and whispered: "Ever thought of turning Incor?"

"It may be the only solution."

"You'll need a protector in Wildoatia."

"Isn't everyone supposed to be on his own out there? No wives, friends or partners?"

"A Wildoatian bigshot is entitled to have a..."

"Harem?" she sniffed, and glanced at a wall clock. "Sorry. Your time is up."

"May I have another lesson right now?"

"I'm engaged for the rest of the evening." As he started to protest she added demurely, "You have been dancing very well these last few minutes; in fact, you used several steps that I never taught you."

"Did I?" His mask slipped back in place. "That is very encouraging; may I have another lesson tomorrow at this time?"

"Certainly, Mr. Ruppen."

"Thank you, Miss Singleton." He walked away clumsily, snapping blunt fingers at Mike to follow.

"If you ever want that punk killed," said Feldman as the door slammed, "let me know. I've found a blowhole in the pumice that he and his pal would just fit."

"I'll let you know, Harry. Right now, though, his lessons help pay the rent."

"I'll bet *he* got 'Stars to issue that evacuation order." Marie patted her blonde hair into place viciously. "It gets him out of a financial jam; the rest of us can starve for all he cares."

"There's something rotten somewhere," the miner agreed.

"We're not licked yet, maybe," said Robin as she limped toward the powder room. "I'm getting another of my crazy ideas."

## 3



BILL FILGUS listened with only half an ear to Sadie's chatter as the cat churned toward Moon Base. News of the evacuation order had flashed along the refinery grapevine just before his shift went off duty, and the young engineer was chewing a bitter cud of reflections.

He kept mopping his sweaty face with a wet handkerchief. The ancient air-conditioner was cutting up again; under the almost-vertical rays of the monstrous, flaming sun the temperature inside the cab was well above 100 degrees.

From time to time he cast dubious glances at the patched left roller which slid silently past the triple side window like a bloated, elongated inner tube.

Mostly, though, he considered the probable fate of an ambitious, lazy, intuitive, forgetful, hard-drinking contradiction like himself when caught, once more, in the terrestrial rat race.

"...an' this Incor guy was tellin' me that in Wildoatia you never see the sun except maybe," Sadie rattled on. "He says it ain't like here, where a lot of folks go off their rockets during the noondays. On Venus, see, there's always a thick blanket of... Bill, what's a cloud, huh?" She joggled his arm after a decent wait. "You ain't been listenin'; I said: 'What's a cloud?' Is it like that dust the cat is kickin' up?"

"Nothing like that, child." Bill drew in his breath as nostalgia hit him, like a fist in the midriff. "A cloud is like...like...why, it's like almost anything you can imagine. Sometimes it's a big plate of vanilla ice cream 'way up in the sky without any plate under

it. Sometimes it's like a face or a queer animal. Sometimes it's lace around a pretty girl's hair. Or it can be like a black knot in your stomach after you've eaten too much."

"Yah!" said the girl. "That's noon-day talk; I don't."

"You don't what?"

"I just don't!" She sensed his irritation and wriggled.

"...don't finish your sentences," he snapped. "And your grammar! You've taken to talking like a guttersnipe."

"What's a guttersnipe?" she tried to change the subject.

"Some say it's a longlegged little bird that always gets underfoot." He couldn't help grinning at her eager freckledness. "But the truth is that a guttersnipe is a stinking cigar-butt that somebody has thrown away. In your case I'd guess the somebody was Lou Ruppen."

"Lou's nice," she cried. "He's rich, and he's smart, and he's gonna..."

"He is going to do what?" Bill enunciated.

"He...he is going to help us all get started again when we go back to Earth," she said glibly. "And he saves so much time when he talks to Mike."

"Well, you tell him sometime that good grammar is the mark of a gent, will you? By the way, did Lou give you that thing?" He pointed to a bright clip that partially controlled her silky hair.

"Yeah... Yes. He said he was tired of my looking like a chrysanthemum, whatever that is."

"Give it back to him; tell him your father won't let you accept gifts."

"Aw, gee. You and Pop are always picking on Lou; he wants to be friends."

"I'd as soon make friends with a..." Bill broke off to make a frenzied snatch at the control levels. When he had slewed the cat away from a lava outcrop that could have chopped the inflated rollers to ribbons, and left the two of them stranded, he added:



"Lou's like that. Sharp and deadly. I think he's an Incor."

"And he thinks you drink too much."

"He does, huh? Say, how about those lessons?"

"Yah!" she began, then added as his hand swung back. "I have them 'most done."

"Let's hear your English lesson. Finish reading that Hiawatha poem you started yesterday. And if you drop a single 'G' I'll whack you. Right?"

"Right." She opened a book. "Let's see. ...Here's my place:

*"As unto the bow the cord is,  
So unto the man is woman,  
Though she bends him, she obeys  
him..."*

"Hey!" she whooped. "How about you bendin' a little, Bill?... Ouch!"

"I warned you!" He rubbed a smarting palm against his pants leg. "Now get on with it."

**S**ADIE HAD finished her English and Geometry and was well along in Physics, her pet study, when the cat's Geiger counter started rattling like a stick drawn along a picket fence.

"Oh Lord," Bill groaned, slowing down as much as he dared; "they've dropped another garbage can somewhere around here."

"Where?" She joined him in squinting through the sun glare toward a pass in the Straight Wall that loomed dead ahead. "Everything was clear when Pete and I came through."

"Spang in the middle of the road, of course. You'd think those dopes on Earth sat up nights-figuring where they

could drop the stuff to cause us the most trouble. See it now?"

"Yes." Near the mouth of the pass she had made out what did, indeed, look like a giant's trash can. Originally it had been the cheapest kind of space missile; the big cylinder had burst like a bomb upon impact. Its contents of contaminated laboratory apparatus, sludges and unidentifiable junk lay scattered for thousands of yards over the dust-choked plain.

"Can't we just ram through the stuff, like running the gauntlet in the Indian stories?" She singed her nose on the "windshield" as she leaned too far forward in her excitement.

"And maybe get the cat so hot they won't let her through the air lock? Nuh uh! We'll try Brown's Pass."

"Oh oh! Brown's is plenty rough. You think that patched roller can take it?"

"It'll have to, pardner." He gave the obstruction a wide berth and edged the crawler along the flank of that impossible 900-foot-high wall which cleaves upward through the plain, a knife of solid rock. "Help me watch for blow-holes; fall through one of those and we'd never be found."

Half an hour later they left the treacherous flat and began creeping through the equally-hazardous secondary pass. Brown's was seldom used by the miners and so had never been properly cleared of lava chunks. Twice the vehicle teetered on one roller, when Bill was forced to drive it high on the side of the cleft to avoid sharp-edged rubble.

They nosed down, at last, into the southernmost bay at the Mare Nubium. There they had to stop to get a tight compass fix on the one reliable landmark—a distant speck of glitter that marked the landing shutter of the Moon's space port.

The task took only a minute. Yet, by the time Bill had finished, the cat had sunk almost to the top of its rollers in impalpable pumice dust. It

bucked and snorted like a dinosaur caught in a tar-pit as he threw the engine into gear. The rollers fought themselves upward, inch by inch, but did not regain the surface until after a half-mile run.

Tons of dust were hurled skyward by the laboring vehicle. The cloud, unsupported by an atmosphere, fell back to the ground like a solid sheet of rock. This tossed up a diminishing series of clouds that collapsed in their turn.

Sadie peered out of the rear window during this maneuver, hoping to sight one of the fabled Moon mirages. Nothing appeared; after the last of the clouds flopped down, the plains behind them lay as flat and unmarked as though they never had passed over it.

"What would happen now?" Sadie stopped, then resumed hurriedly as Bill cast her a jaundiced glance. "I mean, what would happen now if our engine stalled or that roller blew out?"

"I'd send out an S.O.S., hoist that jointed flagpole you'll find behind the seat and wait for the emergency crews to come and dig us up."

"That would be fun." Her pale blue eyes shone.

"That's what you think. It happened to me once. Ugh!"

"Think we'll beat the ship to Base today?"

"Not a chance; we're an hour late already."

"Shucks!" She bounced around in the seat and reopened the Physics text. "Say Bill, I don't get this Unified Field theory stuff yet. How come gravity, 'lectricity, magnetism and space-time are all the same and yet different?"

"Well Einstein said..." He was still explaining half an hour and ten miles later when a blip on the dashboard radar warned that the weekly ship that tied Moon to the Earth was coming down.

"I wish it was...were...night," said the girl, mindful of her recent lesson.



AT NIGHT such a landfall was better than an oldtime Fourth of July fireworks display. The globular ship would drift from among the great stars, ports alight and chemical braking-jets spouting rainbow flames. Then, just as she seemed about to crash, the shutter would iris open and gulp her underground in a blaze of glory. In today's sunglare, the exhaust flare looked pale and tame. There was something majestic, however, in the geyser of frost particles that shot upward as the shutter snapped and allowed a gush of air to escape from the city. The plume, formed because space always remains frigid—even when the surface of the Moon is baking hot—hung above the port like a vapor trail.

"Reckon there's a big shipment of Incors aboard this time?" asked the girl.

"The shipments get bigger each week; I'd guess there'll be a hundred of them."

"Oh, goody. They're fun. Not like the stuffed shirts around here."

"Thank you."

"I didn't mean you, Bill. You're pretty nice most of the time. But, well, take Robin... Miss Singleton, I mean. She doesn't like it because I help Pop at the cafe; she acts as if some Incor might rape me."

"Some of them damned well might, if I wasn't around to keep an eye on you," Bill growled. His task of playing nursemaid to a busy barkeeper's precocious daughter already had been responsible for several black eyes, and handfuls of barked knuckles.

"They'd have to catch me first," Sadie giggled. "One did try last month.... Banged his head on the ceiling something awful... Five stitches!"

"Why don't you get acquainted with the tourists instead? Some of them are worth knowing."

"Yah! Tourists!" She tossed her tawny curls. "Their shirts aren't even stuffed; they're limp! 'Little girl',"

she mimicked, "help me to my room. I feel doocedly queah in this low gravity.' 'Hey, kid. Get me a package of cigarettes.' 'You poor, poor darling; I think it's terrible that you have to work in a low dive like that cafe.'"

"Ever try talking to some of the reformed Incors; the ones who have got fed up with Wildoatia and are heading home to Earth to become decent citizens?"

"Yellow bellies," she sneered. "Not worth wasting powder and shot on."

"Have it your way; but keep me in sight when the ship's in."

"Oh, sure. The noondays are starting, and those tenderfeet aren't used to them; they'll be wilder than usual. I'll be extra special careful."

Bill sighed as he turned the cat down the paved ramp that led to Base's airlock for surface vehicles. He realized how tenuous was his control over this little savage. One slip—one show of authority that seemed unfair—and he would lose her.

He inched the clumsy vehicle through the lock, waited while a guard checked it for contamination, drove along a dimly-lighted tunnel to the space port, and turned over his load of zirconium ingots to a clerk at his refinery's shipping office. Then he and Sadie headed for the cafe, automatically dropping into the graceful, loping Moon Dance step in time to music that drifted from loudspeakers placed at every tunnel intersection.

THEY DID not have far to go. Base had fewer than 500 permanent inhabitants and was as compact as a beehive. Back in 1980, the first settlers—under the influence of futuristic illustrations in magazines and Sunday supplements—had made grandiose plans for a surface city enclosed by a plastic bubble. They soon found, however, that the cost of any bubble strong enough to hold a breathable atmosphere would be prohibitive. So, being sensible people, they had tunnelled into



the porous rottenstone that underlay much of the Mare Nubium's blanket of heat-and-cold-insulating dust.

Their largest cave was the spaceport topped by its air-conserving metal shutter. The rest of the little city was jammed with sunpower engines, hydroponic gardens that supplied food and purified the air, machine shops, storage bins, barracks and other necessary facilities. Nostalgically, they had named the connecting tunnels after the streets of New York.

The one anachronism was the ridiculously spacious hotel, excavated next to the port. In early days it had been jammed with gawking tourists whose lavish spending met a good part of Base's chronic deficit; now the hotel had become a white elephant, far gone in disrepair, and badly in need of redecoration. Only its cafe and bar continued to do a roaring business when Incors were in town awaiting transshipment to Venus.

The bar was still quiet when they entered. Half a dozen Moonies were there, having quick drinks or sandwiches while they still could hear themselves talk. Incors had begun drifting in by twos and threes after receiving their landing papers, but they were ludicrously intent on getting their moonlegs or on making the still greater adjustment to the fact that they had escaped the straightjacket that United Stars clamped on the obstreperous. Tom was dispensing more bicarb and space oysters for queasy stomachs than he was selling syn. Hank, the broken-nosed stevedore who doubled as second bartender and bouncer on busy nights, had not yet reported for duty.

"Any further news, Tom?" Bill asked after he had exchanged a few pleasantries with the regular customers and ordered a double syntini. Sadie, behind the bar already and rummaging for a coke, tilted her bright head for the reply.

"The ship brought a bunch of officials from New Washington. They've gone into a huddle with Mayor Wheaton, Lou, and the mine owners."

"Why didn't they ask you to sit in?"

"Oh, the chairman, a General Thompson, dropped around and patted my head while ago: good Old Tom. Everything's been decided; no use bothering me with details. They'll find me a nice kennel on the space station." Tom shrugged.

"Did he say how they're gonna get you off the Moon without killin' you?" Sadie snipped, her grammar forgotten.

Her father shrugged and poured Bill's drink.

"No chance for an appeal?" asked the engineer.

"None, the general said. I asked him why they just didn't dump the stuff out into space. He said that was uncontrolled disposal... a space ship might ram it, or it might drift to some other planet. Can't take a chance. All that."

"Did you tell him my idea of shooting wastes into the Sun?"

"Ummm. They *had* considered that. Trouble is that the Sun, being a big atomic furnace, can't be too stable; start force-feeding it with radioactive scrap and it could go nova."

"One chance in a billion." Bill signalled for a refill.

"No chance at all if they dump the stuff here. Also, I suspect the deal is being pushed because it gives a good excuse for closing out a colony that doesn't pay its way." Tom looked even older than usual tonight.

"The mines and refineries pay, don't they?"

"They used to, when the only cheap way of refining titanium, zirconium,

and the other refractory metals that are so common up here, was in a natural high vacuum. Thompson said that now, since Earth's scientists are getting the hang of using Martian plastics as substitutes for most metals, our refractories are a drug on the market. Nobody wants to pay the high space-freight charges."

"Oh." Bill shoved his empty glass across the bar.

"I'd go easy on the syn tonight, friend; these are noondays, and I have a funny feeling that almost anything may happen. Also, Robin wants to see you."

"O. K." Bill flushed. "Hold that one till I get back."

"Why *do* you drink so much?" This from Sadie. "Syn tastes like it."

"Maybe because Lou disapproves," he grinned wryly. "Or maybe just because."

"Finish your sentences," she mocked him.

"You win." He gave her curls a friendly yank and headed for the studio.

## 4



THE JUKEBOX was playing a samba as Bill entered. The little room was more crowded than he had ever seen it, but nobody was dancing; instead, they were listening to Harry Feldman. The big miner stopped in

mid-sentence as the door opened, then grinned as he recognized the newcomer.

"Come join the fray, Bill," he said from his perch atop a chair. "This is a protest meeting of folks who don't want the Moon debased. Robin says you have some ideas we can present to those hatchet men from New Washington."

"I *had* an idea. Tom tells me they

have knocked it down already. Why isn't Tom here, by the way?"

"He'll come later, when Hank relieves him at the bar. Haven't you any suggestions at all?"

"I'd put a guard at the door, first thing, to keep out snoopers. Then we ought to elect a citizen's committee or something."

"The committee already has been elected—you and Tom and Robin and me. Marie, will you keep an eye on the corridor? If anyone we don't trust comes this way, give us a nod and we'll go into a square dance. To fill you in, Bill, the first thing the folks here want to know is: can 'Stars make the evacuation order stick? Can it force us to leave against our will?"

"That depends on what you mean by 'force'. Legally, as I understand it, the Space Patrol has no authority to take us by our ears and drag us back to Earth. On the other hand, if we can't pay for supplies—and we can't, you know; the Base is running at a loss of several million dollars yearly—'Stars is perfectly within its rights if it stops sending them up. I'll leave it to you to figure out how long we could last without repair parts for the machines."

Several people started talking at once. Feldman banged on the wall until order was restored. Then he recognized a skinny little fellow.

"I'm H-horace Matthews," the man said in a reedy voice. "I'm a physicist with the Copernicus Titanium Refinery. I j-just want to s-say we could make a g-green planet out of the M-Moon if they'd let us. There are un-un-un. . . there are limitless amounts of o-oxygen present h-here in the form of o-oxides locked up in the r-rocks. There's a l-l-l. . . there's unlimited water of crystalization in the Moon's c-c-crust, too."

"You're right, Horace," Bill answered. "But where do we get the energy we need to pry those things loose?"



"We can get power from the Sun," Robin reminded him wistfully.

"Oh sure: if we had enough time and equipment to build thousands of new mirrors, mercury boilers and electric generating stations. You know as well as I do that 'Stars is too poor to give us the mountains of stuff we'd need even to start such a project. Earth has almost run out of raw materials. Mars has nothing left but the plastics she grows. Venus..."

"How about going to Venus, then, and helping the Incors develop it?" someone called from a far corner.

"That's your privilege," Bill answered tartly; "I'd rather starve right here."

There was a rumble of agreement. Industrious Moonies despised the lawless Incors.

"Could we use the power plants of the mines and refineries?" Feldman's bass voice cut across the growing uproar. "My plant alone develops a million horsepower."

"How would your plant pay for fuel if it switched over from extracting hafnium for export to producing water and oxygen?"

"Yeah. How would it?" the superintendent agreed. "The plant would be down in three months if 'Stars cut off its plutonium supply."

A chunky, middle-aged woman held up her hand.

"Yes?" said the chairman.

"I'm Sarah Anderson, in charge of the commissary," she said. "I think we're getting in too much of a sweat about this. After all, it will take several years to get that space platform built. Meanwhile, something may turn up."

"Listen to Mrs. Micawber talk!" somebody jeered.

Bill felt a tug at his sleeve. It was Robin, her dark eyes big as saucers. "I have an idea," she whispered.

"Tell it to the big gentleman on the little chair."

"No, Bill; not yet. I want to talk to you and Tom about it first."

Bill nodded and got the floor. "Since this is only a rump session," he said, "and since none of us has come up with very concrete suggestions, I propose that we adjourn until tomorrow at this time. That will give the Citizens' Committee a chance to confer with the officials from New Washington. In the meantime, all of us can do some hard thinking."

"Any objections?" Feldman asked. There being none, the meeting broke up.

**FIVE MINUTES** later Robin, Bill and Harry were closeted with Tom in the little kitchen and stock room back of the bar. Sadie was there too, on the plea that she could not finish her lessons amidst the rising uproar outside.

"Robin has an idea," Bill said over the rim of a cocktail glass after Tom had been filled in regarding events at the meeting. "Spill it, honey."

"It's... Well, you see..." The dancer twisted her fingers together. "I'm so rusty on my physics..."

"What would I give to be as rusty as you are!" Sadie piped up.

"Pay attention to your lessons!" Tom rapped. Then to Robin: "Speak up, child; maybe you have a new approach. God knows we need one."

"I got to thinking that, well, if they're determined to make the Moon a garbage heap, why can't we set up a garbage disposal plant?"

The others looked blank.

"All the stuff they're throwing at us is long half-life waste," she rushed on, "things they don't dare dump in the sea any more for fear of what may crawl out of the water in a few hundred or thousand years; sludges that can't be buried because eventually they'll seep into the water table and poison people for miles around; equipment contaminated with Plutonium 239, say, that stays hot for 24,000

years. They don't worry about radioactives that burn up quick. It's the stuff that keeps radiating practically forever that scares them. Dr. H. J. Muller—the man who did all those experiments with fruit flies 50 years or so ago—once said these long-half-life wastes eventually could destroy a fifth of the human race."

"Honey," Bill said impatiently, "even Sadie knows about the birds, the bees and the fruit flies."

"Of course. Of course!" she almost screamed at him. "But do *you* know how much energy would be released if all the long-half-life stuff could be turned into short-half-life elements or isotopes?"

"I know," Harry sighed. "It would amount to googleplex to the tenth power megacuries, or something like that. But what's the use of dreaming about that. It can't be done, even theoretically. Carbon 14 *stays* Carbon 14, with its half-life of 5568 years. And so on down the line. You can't change nature."

"Now wait a minute, Harry! They used to say that about human nature, too, but 'Stars has made some changes recently. And what about that half-life equation  $t_{1/2} = \frac{0.693}{k}$ ? When you change  $k$ , the proportionality factor, or 0.693, the concentration, then the half-life time has to change, too, hasn't it?"

"It says in this book," put in Sadie, the irrepressible, "that when you bombard U-238—half-life, thousands of years—with resonance neutrons, you get Neptunium with a half-life of only a few hours plus oodles of electron-volts."

"Of course you do," Robin cried. "Elements are being transmuted right along; in minute quantities, of course. Down on Earth it only pays to transmute the most radioactive ones, like uranium and thorium. Some of the diluted wastes are used as tracers or for treatment of cancer, but it's cheaper to throw the rest of them away."



"Like they used to throw away mine-tailings until the rich ores ran out," Harry agreed. "But look, Robin: to make your idea pay, you'd need vacuum tubes as tall as mountains, temperatures as hot as those in the center of the sun, and a reactor as big as the Moon!"

"Well?" she said.

"Great jumping Jehoshaphat!" Bill was catching fire. "Right outside the Base we have a perfect vacuum. Surface temperatures here go down near absolute zero when the Sun sets. In the daytime they go above 200 degrees and could be boosted right through the roof by means of our sun engine mirrors. The Moon is one huge permanent magnet. We can make electrons chase their tails around it like no cosmotron ever has done; we won't need expensive coolants, moderators and lead shielding. Why, the whole Moon can be turned into the most powerful and efficient reactor ever dreamed of at very little cost."

"Then the wastes will supply us with enough power to turn the planet inside out if we want to." Harry was grinning from ear to ear.

"Sure. Eventually we can have an atmosphere, lakes, grass, cows...even clouds! Robin, you're a genius! Why didn't I think of this?" Bill hurled his glass across the room, swept the teacher into his long arms and kissed her soundly.

TOM SAID, as he mopped up, "You probably didn't think of it, because you knew that President Brown of United States would sit heavily on the whole scheme."

"Why?" the others chorused.

"Because Brownie always puts his eggs in one basket. Always! I know him of old. When he gets a bee in his bonnet there's no room for two: the Sahara irrigation project. Melting the polar ice caps. The Martian War. It's always the same with him. Right now he is pouring all the funds that 'Stars can scrape together into the Pluto reclamation. He won't divert a dollar in our direction."

"Not even if we can show him that our project will be self-liquidating?" cried the super.

"That's a big if, Harry."

"Horace Matthews is one of the best physicists in the System; I'll bet that he and Robin and Bill could rig up our reactor out of the high-vac equipment at Copernicus."

"But Brownie isn't a betting man. Besides, he needs that equipment on Pluto."

"We can talk things over with the mine owners," Harry said halfheartedly.

"Will they gamble on a crazy scheme which will mean bankruptcy for them if it fails? Especially since New Washington will compensate them if they get out?" Tom cocked his head as the sounds of a fight in the cafe blasted through the kitchen door. "Guess Hank can handle them a while longer," he said as a bull-like roar quieted the ruckus.

"What's our next move, then, Tom?" Bill asked.

"Oh, we should go muscle in on that meeting, I suppose. We can tell 'em our idea and get turned down. Or we can stall for time until we have put our proposition up to the mine owners... and get turned down. There's always the danger, too, that our plan will leak to the Incor underground here at Base; that wouldn't be good."

"How about us setting up a Moon Free State?" Harry wanted to know. "That's permissible under the United Stars charters, isn't it?"

"Yes," Tom straightened proudly. "I

got that provision written into the Charter, practically over Brown's dead body. He kept yelling that no veto power could be permitted. But Mars backed me up. So Article 9, Section 28, reads:

*"No habitable planet or satellite can be forced to join United Stars, or to maintain membership therein against the will of a majority of the inhabitants of said planet or satellite."*

"In other words, there can be no ganging up on, or coercion of, any 'Stars member, no matter how weak it may be."

"Whoopee! Let's secede!" Sadie tossed her textbook into the air. "Then Bill and me will fill a cat with carbon black and write '*No Dumping Allowed*' signs all over the landscape, in letters big enough for everyone on Earth to read when the Moon is full. I bet that'll stop those New Washington b..."

"Sadie!" yelled her father.

"Sorry, pop." She caught her book as it drifted down from the ceiling.

"It won't work," Harry gloomed. "If we secede, 'Stars can claim it has no further obligation to us; it will stop sending supplies and starve us out."

"Money," said Bill, "is a wonderful thing."

"Lou says Wildoatia is rolling in it," answered Sadie.

"What if we *don't* secede but do put up those no-dumping signs?" Robin perched herself on a table edge and swung one long leg thoughtfully. "Nobody ever asked us for a permit to dump. And that evacuation order... we didn't agree to that, either. Tom, you're a space lawyer; couldn't those things be classed as coercion under the Charter?"

"Robin, you've missed your calling!" When Tom took off his dark glasses to polish them there was a light in his eyes that hadn't been there for



years. "You've made a case that will stand up in any court of interstellar law. It will be coercion if dumping makes the Moon uninhabitable; and it will be coercion if it becomes uninhabitable because supplies have been cut off. Come on, all of you. Let's start a fire under our visiting firemen."

## 5



THE CAFE crowd was getting into stride, they found as they left the kitchen. Hank was serving drinks in a frenzy. Four youths with clipped heads and pallid complexions had mounted a table and were tuning up a barber shop quartet. A blond fellow with a half-healed knife scar across his cheek was attempting a sailor's hornpipe. His gyrations, which had onlookers near hysterics, shuttled him between floor and ceiling like a badminton birdie. Along the walls a few slumming tourists huddled in booths waiting for service. They stared at the Incors like birds at snakes.

"I'll wait on tables," Sadie told her father. She ducked back into the kitchen for menus and setups.

The committeemen nodded to a Space Patrolman who had posted himself in the hotel lobby; just outside the cafe door.

"Happy Noondays," he grinned back; "I'll ride herd on the boys in the back room."

They left the lobby and entered a cramped grey tunnel eight feet or so in diameter. This was "Broadway", main thoroughfare of the underground city. Disdaining the handrails provided for the assistance of Earthlubbers, they loped along briskly to the eternal music. Most of the dugout shops and offices they passed already had their windows boarded up in case the In-

cors started pulling things apart later, as they often did. At "57th Street" they turned right into the large and brightly-lighted cave that bore a sign reading "City Hall."

Ruppen came out of an inner room as the others were presenting their names to an S. P. guard. He grunted at them, then lumbered toward a phone booth, one hand sliding along a handrail to keep him on his clumsy feet. Ten minutes later he returned, grinning like a big black cat, and reentered the conference room. Then there was a further wait of 20 minutes before the guard brought the Moonies into the august precincts.

General Ferdinand Thompson, 'Stars' lean and hungry Minister of Colonies, greeted Tom coolly, and barely acknowledged the introductions that followed. Mayor Wheaton, Ruppen, and Wheeler Kennicot—a hardbitten, black-browed individual who always acted as spokesman for the mine owners—did not bother to conceal their impatience.

"We are on the verge of adjournment," Thompson grumbled as he flicked a bit of pumice from the sleeve of his white uniform. "To what do we owe this, ah, unexpected visit, Mr. Kane? I thought I explained to you this afternoon that it will be useless to protest the evacuation order."

"My committee has no particular interest in the evacuation order, General," Tom grumbled right back at him. "It is null, void and unenforceable under Article 9, Section 28, of the United Stars Charter."

Thompson jumped. The involuntary motion lifted him two feet from the floor. He lost most of his dignity while regaining some of his balance.

"Now see here, Tom!" he exploded. "This isn't like the old days. I don't have to tolerate any of your..." He choked. "That section doesn't apply here."

"Relax, Ferdie," grinned the bartender. "The section doesn't apply to



a dead planet; that's why I didn't mention it this afternoon. But I have since learned that the Moon isn't dead. It is merely paralyzed; we Moonies intend to revive it."

Robin squeezed Bill's hand delightedly at this interchange. Tom was losing the beaten, tired look that had settled upon him in recent years. At the same time Thompson was reverting to the role of badgered under-secretary that he must have occupied when the Charter was being forged.

"My dear Mr. Kane," the general started all over again, "I haven't the slightest idea what you mean by that last statement. Moreover, it does seem late in the day for you to raise your objections. Mayor Wheaton..." he bowed to the fat man with the fixed smile who sat at the table, "...has accepted the plan in toto. He is the elected representative of all residents of the Moon, yet he did not mention that there was any opposition to the evacuation order."

"He didn't ask us; he was too busy playing footsy with Wheeler Kennicot and Lou Ruppen."

"Please, Mr. Kane! This is an important meeting... Now you claim that your committee represents the rank and file colonists. Have you held a referendum, as is required by law?"

"I hold one every night—at the bar—the bar of public opinion, let me add. And, before you start hemming and hawing, may I remind you that 'Stars sent me up here with specific instructions to keep my ear to the, uh, mahogany.'"

"Yes. Yes. Of course," Thompson mopped his forehead. "Now this plan you spoke of for reviving the Moon.

It sounds preposterous but perhaps you had better explain it."

TOM EXPLAINED, calling upon the other committee members for technical details. As he talked, Thompson's face grew even longer and sourer; Wheaton's smile flickered on and off like a neon sign in need of repair. Kennicot started by being bored and finished up taking frantic notes on the back of an old envelope. Ruppen manicured his spade-shaped fingernails.

"Impossible!" the general exploded as the bartender finished. "Science-fiction imagining. Even if transmutation were possible on any such scale the cost would be fantastic... prohibitive."

"Only under terrestrial conditions." Tom lighted one of the five cigarettes that his doctor permitted him to have each day. "Not under conditions as they exist on the Moon or..." He blew a lungful of smoke at his old enemy "...as they exist on Pluto, on the asteroids, or even on that crazy space platform which 'Stars insists on building."

"It *will* work, General!" Kennicot spoke for the first time, his voice harsh with excitement. "It's one of those ideas that men keep stumbling over but don't notice. Like movable type, the sewing machine, or the gas turbine which they ignored for 50 years while beating their brains out to develop inefficient piston engines. Everyone says it can't work, so nobody tries to make it work. Good Lord!" He stared at the figures on his envelope as though they had bitten him.

Thompson dropped his sodden handkerchief. He grabbed for it and grabbed too low, of course: Trying to correct his mistake he tipped over like a badly-balanced doll. Bill caught him by the armpits and set him back on his feet.

"Well," he stuttered. "This puts a new light on the matter; perhaps the evacuation order can be postponed af-

ter all. Will that make your people happy, Tom?"

"No, Ferdie." The old man looked 20 years younger. "We'll require capital to get started. How much would you say we'd need, Harry?"

The superintendent scratched his head and thought deeply. "Plenty," he said at last. "Let's say the atom bomb project cost the various nations a total of twelve billion dollars. I'd say we could do with ten."

"Twenty!" said Kennicot. "Otherwise it will take a lifetime to get into production."

"Twenty *billion* DOLLARS!" Thompson yelled. "There isn't that much money in the entire solar system right now. Maybe someday, after Pluto is brought in..."

"Now," said Tom. "Otherwise we will refuse to allow any more dumping."

"You can't do that... Or, uh..." The general's once-immaculate uniform was wet under the armpits. "If you do make a no-dumping rule, I'll starve you out."

"Naughty!" Tom tormented him. "That would be coercion."

"All right," bellowed the harried diplomat. "I don't think you Moonies can make this shakedown stick. But let's admit, for the sake of the argument, that you can. Say we stop dumping; say we have to continue sending food and other things needed to keep you alive up here. But we *don't* have to continue subsidizing the products of your mines and refineries; they're obsolescent. Keep them! See how you like stewing in your own juice!"

"And see how you like stewing in atomic wastes," Tom said softly. "I understand that The Allergy is barely under control, even as things stand now."

"We'll dump our wastes out in space."

"Mars and Venus would object and so would we," Bill spoke up. "Some day you might even get complaints

from beings on other solar systems."

"Could you manage with, say, five billions as a starter?" Thompson capitulated.

Kennicot opened his slit of a mouth but Tom cut him off. "Ten," he said firmly. "Perhaps we can borrow the rest from Mars or Venus."

"I'll try," groaned the general. "The system is overstrained as the result of the Pluto Project; this may bankrupt it. But I'll do my best."

RUPPEN looked up, after buffing his last nail to a high lustre. "Gentlemen," he said with a wolfish smile, "I regret to tell you that this discussion is academic. There will be no garbage disposal project; Wildoatia—Venus—cannot permit it."

"Since when has Wildoatia dictated to United Stars?" Thompson bristled.

"Wildoatia has been in a *position* to dictate for five years," the hotel man said gently. "We supply the other worlds with at least 95 per cent of their uranium. If we cut off that supply." He shrugged.

"We?" The general was looking at him in horror.

"Of course; I'm sure Tom has warned you repeatedly that I was a big shot in the Wildoatian setup."

"Yes, but... A hotel keeper! It was too..." Thompson subsided.

"You underestimate our portly old friend, General. He is no has-been; showed remarkable astuteness in dangling that bid for a Wildoatian loan. I regret."

"Why?" Tom was sweating now. "It would be a sure thing?"

"For a while, yes; but it would mean the eventual finish of Wildoatia. Let me explain the obvious. Wildoatia has a near-monopoly on the only remaining power source in the solar system. And we Incors have Wildoatia."

"Now... present methods of uranium fission are only about ten per cent efficient; maybe only one percent. The



rest is waste...waste that has been or will be dumped on the Moon." He regarded his predatory nails. "But a method has been stumbled upon that promises to wring a major part of the available energy from those wastes. There will be enough of that energy, you say, to rebuild the Moon? Why, there'll be enough of it to keep Earth humming for a generation!

"It happens that I hold quite a block of Wildoatian Kingfish U., Preferred. Today it was quoted on Wall Street's Big Board at 785 and I am a wealthy man; tomorrow, if this story gets out, uranium stock won't be worth the paper. And I will be." He spread his hands.

"Just how do you propose to put our atomic cat back in the bag?" Tom asked. He had regained his poise while Lou talked; only a slight shaking of his fingers as he lit a second cigarette showed the strain he was under.

"Very simply. When I got the tip-off from Sadie..."

"Sadie!" Tom sagged against the conference table like a man of straw, his cigarette drifting to the floor. "Sadie doublecrossed us? Sadie turned Incor?"

LOU SAID, with the magnanimity a champion shows to a worthy, but fallen foe, "She didn't doublecross you and it'll take me a long time to make a good Incor out of her. No, Sadie was trying to work your side of the street. The poor kid figured that, if I knew about your scheme, I might help you put a burr under Thompson's tail. She almost had me sold, too; until she let slip the fact that nobody else had been told about it.

"She balked and yelled bloody murder, then, when I tried to sell her on my plan. I had to call Mike on another line and have him smack her around a bit. After all, Tom," he added half-apologetically, "I didn't dare take a chance on having her blab to some Moonie before we had time to build

fences around Kingfish U; she finally agreed to go along."

"Go along where?" Robin husked.

"Why, to Wildoatia, of course, with the rest of you. There's a great future out there for any tough youngster who knows anything at all about nucleonics. As soon as I got her to agree to help, I told Mike to rally the gang and grab the ship. A few of the crew are undercover Incors, of course; most of the boys at the hotel are with me. Even have won over a Patrolman or two... including the guard outside, in case any of you are thinking.

"Then there was the mob at the cafe. Green, most of them, but since no alarm has sounded, the job must have been done. So, if you gentlemen...and Miss Singleton...will come along quietly, I promise you safe conduct to Wildoatia."

"You haven't a chance in a million." There was something akin to awe and unwilling admiration in Robin's voice.

"Incors like our chances long...and our women slim." He mapped every sweet curve of her with his bold eyes. "The odds are more like ten to one, though. I told Mike that if all eight of us didn't join him on the ship at nineteen hundred, he was to take her up on chemicals for half a mile or so, then fire her atomics and melt down the shutter. 'It is now eighteen thirty.'" He rose.

"You'd really do that!" There was no doubt in Robin's horrified cry. "You'd blast or suffocate yourself, and two thirds of all the people on the Moon. Just for the sheer hell of it!"

"Your death would be my only regret; but that isn't going to happen unless we linger here."

"This Will Mean War!" Thompson croaked.

"Stars will have quite a time digging the Incors out of Venus. Come along, children."

"Bluff!" Fists flailing, Bill launched himself like a club across the conference table.

Lou was no longer there. He ducked under the table top, kicked himself across the room and was through the door before the others could draw breath.

Seconds later Bill sailed through after him. This time his fist did connect... with the chin of the renegade patrolman.

The engineer halted just long enough to stop Tom's mad dash.

"Easy!" he commanded. "You'll kill yourself. Stay here; alert the Patrol. Call Muzak and have 'em put some fighting music... something like 'The Campbells are Coming', on the speakers. That will bring Moonies from all directions to help."

"Hurry, Bill! Hurry!" Robin was screaming. "Lou can't dance; there's still time to catch him."

## 6



WHEN THEY burst out into the street, Robin fully expected to see Lou either at bay there or dragging himself frantically along the Earthlubber railings. Instead, he was sashaying easily, a good block ahead, to the

tune of "Jets Away."

"The louse!" she wailed. "I should have known it. Hit him once, Bill, for every toe of mine that he has stepped on."

"I wish I had that drink I threw away," Bill panted at her elbow. He was only a mediocre dancer, and the pace already was beginning to tell. He missed a step, stumbled and slid fifteen feet.

Robin took the lead. Harry, the Silver Medalist, moved into second. Bill, Kennicot and Wheaton stayed bunched. Thompson was nowhere.

The port, naturally, was located at "Times Square." As the long race

southward went on it became almost certain that Lou would get there first. Robin's muscular, well-trained legs were narrowing the gap, but not enough.

At "44th Street" they began to hear the roar of the ship's jets warming up. The dancing teacher and the super put on a desperate sprint; at the same moment the loudspeakers let out a startled squawk, followed by a baritone voice roaring the chorus of "Lilliburero."

The unexpected shift caused the hotel man to miss a step at last; he fell gracelessly, slid and caromed into a plate glass shop window.

Robin was on him like a cat. One hand scratched at his eyes; the other scrabbled for a sliver of glass with which to cut his bull throat.

Before Harry could arrive to help, Lou straight-armed the girl, bounced to his feet and loped on. Seconds later he vaulted one of the lead barriers surrounding the landing field.

A wild Rebel Yell from the waiting Incors greeted his appearance. The pursuers arrived at the shield just as their quarry was being dragged through a closing air lock.

Harry beat his fists against the barrier and sobbed his frustration.

"We've got to get away from here before blast-off," shouted Bill as he pelted up.

"Does it matter?" said Robin between long, shuddering breaths.

"I want to see what hits me," the engineer said grimly. "Here. Into the control tower."

They followed him into a little room topped by a transparent bubble. A man lay across the panel, blood oozing from a gash in his scalp. The controls had been locked in takeoff position.

"There she goes," Harry shouted.

The hydrozene rocket blast built to an earsplitting wail. The big ship shuddered; rose slowly on a pillow of flame.

The shutter snapped open. The ship dashed through; the shutter irised shut.

A nervewracked silence settled over the port. Only a whirl of snowflakes; only a few sprawled, scorched bodies remained to tell of the coup.

"Goodbye, Bill darling," Robin whispered. "I love you, you big gorilla." He squeezed her hand, his eyes fixed on the hovering ship. Still on the chemical jets, she wavered and bounced like a leaf in an air current.

"Get it over with, damn you," Harry said through clenched teeth.

The holes in the ship's stern that marked the atomic jets...jets meant only for use in deep space...blinked.

But they did not build to that searing glare that could melt armor plate at half a mile. They blinked, blinked, blinked like malevolent blind eyes.

"He's going to torture us a bit," Harry gritted.

"No," said Bill.

"No?" Robin shook his arm frantically.

"Watch!" said Bill.

The ship slid off to one side...Riding on chemicals near the ground is a dangerous maneuver...She recovered. The atomics flickered once more. And died!

The hydrozene jets came on full blast. The ship began to climb. A minute later she was a toy in the black sky. Another minute and she had vanished.

**T**HE LOUDSPEAKERS were bel-  
lowing....

*"Sons of toil and danger,  
Will you serve a stranger,  
And bow down to Burgundy?"*

Bill took Robin in his arms and whirled her around the little room. "That kid!" he cried at last. "That wonderful child! I knew she'd come through."

"What in God's name are you blithering about?" Harry demanded. "What kid?"

"Sadie, of course. She saved our lives; she jimmied those atomic jets."

"You're raving. Sadie wouldn't know a moderator from a slug." Harry turned to an examination of the control man's wound. "Robin, find me some hot water. I think we can bring this fellow around."

"Did Sadie ever visit your mine?" Bill asked as the teacher ran out.

"That was one curse that never came upon us."

"Well, she practically lived at my place after 'Stars started skimping us on repair parts. Got so she could take a balky engine apart and put it back together *better*."

"You mean..." Harry straightened from his nursing. "You mean those jets are jammed for good."

"That's what I mean. She must have made a bee-line for the engine room after she got Mike properly buttered up; if I know her, she did a thorough job of sabotage."

"You mean that ship can't make Venus?"

"That's what I mean. The hydrozene won't last long enough to build up escape velocity. The crew can make Wildoatia in lifeboats, but that ship is a derelict."

"You mean Lou won't be a big shot when he gets to Venus?"

"That's what I mean; he'll be the smallest shot imaginable: B.B., in fact. And if he knows what's good for him he'll send Sadie back on the next boat. Otherwise she's likely to take over the joint. In a few years I can just hear her: 'Yah! Incors.'"

Solemnly they shook hands.

Robin, returning with hot water, bandages and a crowd of panting Moonies, found them still pumping away. She kissed them both.

White was the color of the suspect citizen, the man who deviated from the normal code of behaviour; and the suspect citizen could wear no other color. And Daro, Director of Security, realized that he himself was in danger, because of his feelings for Tamal. That was when he began to realize how ruthless even a regime which eschewed violence could be . . .



## CHANGE OF COLOR

by D. A. Jourdan

illustrated by Ed. Emsch

**D**ARO PARKED his aircraft in the space provided alongside the tangle of tall buildings, stepped out, and headed briskly for Tamal's quarters. Ordinarily he preferred a fair distance between his dwelling and that of any of his joy-mates; but in Tamal's case, the distance seemed to be getting longer all the time.

He didn't need to count floors to the twenty-second to see whether her apartment was lighted, he was happily certain she would be there, waiting for him. He could almost see the sparkle in her eyes, a sparkle he fervently hoped was brighter for him than it was for any of her other joy-mates. He paused in mid-stride in shock at his thought. As a psychiatrist—



despite his stern obligations as Director of Security—Daro preferred to permit the widest possible latitude in sex attitudes for the unbalanced. But it was a stunning blow to find such an almost criminal desire in his own mind as a longing for preference among his joymate's other lovers. Many a man wore the white tunic of the suspect citizen for less. He continued to the entrance and elevator more slowly.

When Tamal opened the door, he studied her carefully and thoughtfully. She looked, Daro realized, much like himself. Centuries of calculated breeding had greatly reduced differences of appearance, exactly as the State had hoped. And similarity of appearance had decreased fear and increased understanding among people, also as the State had hoped.

Tamal was pretty as all healthy females were pretty—pink-skinned and brown haired in her case—but certainly no prettier than dark Starra, Daro's only other joymate at the moment.

He held her for several seconds, trying to discern what about Tamal could have precipitated his attitude. She was intelligent and charming, but so was Starra; and he had never found Starra—or any other joymate, till Tamal—inciting fantasies of competing successfully with other males for her.

Tamal wriggled impatiently in his arms and her brown eyes began to draw into a frown. Daro stopped analyzing and under his kiss her eyes again grew warmly approving. He hoped fleetingly that his own exaggerated approval of Tamal was simply the State's objective of greater understanding among citizens carried to an extreme; then he stopped thinking with any degree of detachment.

He was still reluctant to do any self-analysis later when he flung himself down in pleasant fatigue to watch Tamal dress. He noticed she was taking quite a long time. She was still in

her houserobe, bustling busily around the quarters she shared with two other girls of her own age and intelligence-quotient group, now courteously absent.

"If you want a regular dinner," he advised her lazily, "you know you'll have to hurry; otherwise we'll just get buffet." Day workers were expected to reach dining areas within time limits. Latecomers received a much simpler and sparser meal.

Tamal was in the bathroom. She peered at him around the edge of the door. "Let's not go eat..." She looked as though she thought her suggestion was very funny.

Daro raised his eyebrow. "Loving you makes me want to stay healthy," he objected. "Let's."

**S**HE HAD withdrawn back into the bathroom. He frowned, tried to identify the odor in the apartment. It smelled exactly like chicken soup, but of course that was ridiculous. The cooking areas were all so thoroughly vented that no suggestion of food odors would ever reach even the recreation rooms—which adjoined the dining halls—much less travel to the dwelling quarters.

Tamal whisked through the room and took a small container from a built-in chest of drawers and hurried back into the bathroom; she had wrapped a large towel around her waist, over her houserobe.

"What is that?" Daro demanded as she disappeared back into the bathroom.

"What is what?"

"That thing around you. And if you're doing something difficult or unpleasant can I help?" He felt wonderfully comfortable and happy; in some odd way even the errant suggestion of chicken soup that had wandered into the apartment seemed to add to his pleasure.

There was the sound of stifled laughter from the bathroom. Tamal con-

trolled her voice. "What I'm doing is neither difficult nor unpleasant. And this is an apron; people used to wear them when cooking..."

Daro said tolerantly, "Aprons. Cooking." He raised his voice a trifle. "Are you a researcher in genetics, or are you a cook?"

"Right now I'm a cook." Tamal sounded almost grim.

Daro got up and went to the bathroom, looked in. "Tamal, seriously I'm really hungry—" He broke off and stared at her. She was crouched over stirring something in a vessel on a stand over a can of chemical heat on the floor. "Is that some beauty preparation?" he asked doubtfully. "It smells for all the world like chicken soup..."

She straightened up and stared at him defiantly. Her delicate skin was pinker than usual. "It is chicken soup; it's for our dinner tonight..."

"But why—" He spread his hands helplessly. "If you're not well enough to go to the dining hall, you know you can have room service!"

"I didn't want room service!" Tamal went back to her stirring. "I wanted to cook your dinner; all the girls are doing it. Verna does favors for a kitchen worker, and he steals the things for us when he can." Tamal added gloomily, "It's getting harder all the time. So many more people are doing it, it's harder all the time to hide."

"But why?" Daro repeated fuddledly. "Why do it? You get the same food in the dining hall. It will be sent up if you're ill. Why steal the food to cook it in secret?"

Tamal's eyes were very cool contrasted with her cheeks. "I was afraid you wouldn't understand." Her soft mouth was visibly bitter. "I shouldn't have expected it of a Chief Assistant Director of Security—even though some understanding might be hoped for from a psychiatrist."

"And, I flatter myself," Daro said, hurt, "not a bad psychiatrist; just what

is it that I should understand, but don't?"

Tamal took a deep breath. "That I love you." She said it almost angrily. "And that when a woman loves a man she wants to cook for him..." She bent over the food container, hiding her face.

"Is that it," Daro said, relieved. "I love you too, my dear. In fact," he said shyly, "I was wondering if you would disapprove or think me odd if I admitted that I hope you will be my joymate for a very long time. Perhaps," he said daringly, "forever..." It was frowned on, but sometimes extremely-balanced citizens were excused from their social obligation constantly to change their joymates.

Tamal studied him. "I don't disapprove." She said calmly, almost forebodingly, "I will be your joymate forever. And exclusively..."

DARO RESTED the back of his hand against her forehead. "You must be feverish," he said with conviction. "I'm taking you to a health conservatory, now!" He put his lips over her beginning protest, raising his own temperature to what he suspected hers to be. "I couldn't stand anything to happen to you..."

"Oh, you fool!" Tamal said, shoving him violently away from her, but not far. She started to cry. "Just because I want to know that my child is your child, I'm sick! Just because I feel a normal, human emotion I'm delirious!"

He was very concerned. "You are delirious," he said soothingly, "but don't worry. Nothing's going to happen to you... You'll be all right..."

Tamal stopped crying and stood quietly. "I am all right," she said emphatically. She was quite calm. "And I'm not the only who who feels this way. Verna and the others are the same. And they know still others... who want to have exclusive possession of their joymate..."

Daro repressed a shudder. As Chief Assistant Director of Security this was exactly the sort of thing he was supposed to prevent or eliminate. The responsibility was his and it was accompanied by the fullest authority. He was officially empowered to re-educate and control social misfits who might threaten the safety of the state in any way he saw proper—up to and including execution in the gas chamber.

He made it a point in his administration to emphasize constantly that cure of personality deviations was synonymous with complete elimination of force in handling the patient, but he was aware that in other regions force was used. People were put to death for socially disruptive ideas like Tamal's; delirious or not, her ideas, if expressed, put her in great danger.

Daro grasped Tamal's shoulders. "For centuries we have known that concentrating the full sexual drive on only one joymate produces emotions of such intensity as to be injurious to society," he lectured anxiously, watching her face to see if she was being moved by his reason. "You don't want to wear the white tunic of the suspect citizen—you don't want to return to the fierce and brutal behavior of our cavemen ancestors," he pleaded.

"I want to love only you," Tamal said adamantly. She raised her chin. "For months I've been finding excuses for not seeing any other men..."

Daro winced. For some time he, too, had been neglecting Starra; but in his case he had simply been working too hard. "You're sick," he temporized.

Tamal glared at him. "That's a lie," she stated; "and you know it."

Daro tried to think. In a health conservatory she would be in more danger than she was here. And she had said that others felt the same way. Even he had been careless of his obligations to Starra. He wondered guiltily if his own leniency in dealing with aberrations was responsible for the wave of

chastity that was apparently sweeping the country.

"Suppose we have dinner," he suggested unhappily. Later she might feel better and behave more reasonably.

But later she was no more reasonable. When he was finally ready to leave she barred his way to the door, playfully but firmly. "See you tomorrow?"

He tried to speak matter-of-factly. "Tamal, you know I'm taking Starra to that sound-effect symphony..."

Tamal said coolly, "Then perhaps I'll give Ferdi a break and go for a hike with him to some natural preserve..."

Daro frowned. Tamal had known Ferdi for a long time, and he didn't approve of too lengthy connections for joymates; they had a tendency to grow unhealthily strong. He started to say something critical, then realized that he wanted to be Tamal's joymate permanently; he stopped in confusion.

Tamal had been watching him hopefully but after a moment she stood away from the door so that he could leave.

He still hesitated.

Tamal raised her eyes to him. "I wasn't really going to..." she sighed. "I just wanted to bother you..."

Daro kissed her and left, refusing to investigate the reason for his sudden surge of happiness when Tamal had said she would not go hiking with Ferdi. Tamal's danger was enough for him to worry about now; later he would think about his own.

**A**T WORK the next day, neither Tamal's irrationality nor his own made any more sense to Daro. He stared for minutes at the next name on his list of interviews for the day. He was already badly enough confused, and here was the one man who could always make him feel even more so.

Rorki was a famous philosopher, and despite the disgrace of wearing the white tunic of the monogamous—

and therefore suspect—citizen, he was as deeply admired by the public for his witty simplicity as he was feared by the government for his facile grasp of unconventional, and therefore unadmitted truths. And all too often in the past, Daro had found it very difficult to disagree with Rorki's irreverent social attitudes.

Unfortunately, Rorki was constantly being accused of revolutionary activities. So Daro, as Director of Security for the Fourth Region of the North American Continent, was constantly being hounded by Milo, his energetic, aggressive assistant, to investigate Rorki's behavior.

Daro, unwillingly compelled to harass the philosopher, handled him as gingerly as possible and wished his over-zealous assistant would give them both some peace. Each time he finished interviewing Rorki, Daro felt like a patient arising from shock treatment, uncertainly attempting to find his way back into the world of the living and the sane.

Now, guilt-troubled as he was, Daro knew he was in for a painful time. He sighed, then resolutely pressed the button that would signal his secretary to send Rorki in.

The door opened and Rorki entered, proud as a hero in his white tunic, disdainfully shrugging off the grasp of two of Daro's guards. He came through the office chin high, and stood regally before Daro's desk, like a prophet grandly awaiting his martyrdom.

Daro dismissed the guards, shut the door, and contemplated the suspect. He made a gesture of resignation. "Please sit down, Citizen Rorki."

Rorki's blue eyes darkened. He said ringingly, "I prefer to stand."

"Whichever you like." Daro's voice sounded more tired than patient. He endeavored to correct himself. "You were permitted to, and you did, Citizen, set the time and conditions of this interview yourself?" The man in white nodded in dignified silence.

Daro kept his eyes on the notation on his desk and restrained his voice from changing in tone or intensity. "Then would you mind telling me," he said, "why you required my guard escort to remove you forcibly from under your bed to keep the interview?"

Rorki's face cracked into a mischievous smile. He glanced around the room, selected the most comfortable chair, and moved it closer to Daro's desk. He eyed Daro benignly. "Why do you think I forced your guard to force me here?"

IT WAS not easy to be severe with Rorki, but Daro was beginning to chill toward the man who was causing him so much trouble. "You are here as a political suspect. I ask the questions; your duty is to answer them."

Rorki shrugged. "I crawled under the bed because I wanted to demonstrate—as graphically as I could—that I didn't want to be interviewed again."

Daro said levelly, "Submission to interview by authority is compulsory, but time and conditions may be set by the suspect. I would have come to you at any time or place agreeable to you."

"It wasn't the time or place I minded," Rorki said reasonably. "It was the 'again' of it."

Daro, as fitted a psychiatrist, was equally reasonable. "How could we maintain order or peace," he asked, "if the number of interviews the State was entitled to request from citizens was limited?"

Rorki smiled even more charmingly. "How stable or worthy an order," he inquired gently, "would one be that was imposed on the citizenry so forcibly that a constant brainwashing was necessary to maintain the status quo?" He spread his hands gracefully. "Such a government would not deserve to endure—and in fact would not, for long..."

"I will not point out," Daro said



slowly, "that your statement is treason—"

"'Treason' being the word used by the system in power to describe any change or improvement," Rorki interrupted laconically. "The degree of 'treason' varying with the degree of superiority of the proposed system over the extant one..."

"—But I will remind you," Daro continued, finding it more difficult every minute to remain detached, "I will remind you that our present government has been in effect now for four hundred years." He stared resolutely at Rorki's irreverent gaze. "That this stability was maintained without unreasonable force or bloodshed should be of satisfaction to every citizen."

Rorki raised and lowered his heavy eyebrows cynically, and rearranged the folds of his white tunic. "Governments," he said flatly, "like men, must change constantly in order to remain stable. Balance defines not a fixed or permanent state, but rather constantly-varying responses to constantly-varying stresses..." He flicked the white drapery of his tunic over his thigh distastefully. "And I believe your next revolution will result from this..."

"As a physician," Daro said uncomfortably, "I am aware that some who wear the white tunic of the suspect citizen are victims of potency difficulties."

"Mine's not," Rorki said flatly. "Never had a potency difficulty in my life. At least," he corrected himself, grinning, "no more than any other over-civilized creature..."

For some reason Daro thought of Tamal. He swallowed. "Rorki, I have interviewed you many times, both consciously and—with your permission—unconsciously. You have the customary brilliance of the creative thinker. Also," he said regretfully, "you have the customary disregard for either the stability of the State or your own life."

Daro ran a hand through his hair, frowned at Rorki. "The State recog-

nizes that men of your caliber are as valuable to it as they are dangerous; the State regards your type of citizen as a sort of socio-political vaccination."

Rorki looked bored.

"I," Daro said carefully, "am required to keep a constant check on such as you to see that you never become more dangerous than you are useful..." Daro repressed a sigh.

Rorki allowed his eyes to stray to his wristwatch.

Daro went on doggedly, "If you have no potency difficulties, would you mind telling me why an otherwise civilized man would deliberately choose to follow a monogamous sex life?"

Rorki looked at Daro coolly. "You never asked me about it before..."

**T**AMAL'S odd behavior had made the subject important. Daro said, "You said yourself that putting deviates in white will become a trouble spot; that makes it fair for me to ask why."

Rorki raised his eyebrows and smiled wryly. "All the might of the State behind you to compel me to speak, and you follow such a genteel and finicky line..."

Daro said patiently, "We have long known that the use of force creates a Frankenstein martyr that must ultimately overthrow the government that uses the force."

"And that force possessed—but not used—is inevitably regarded as benign," Rorki said cynically. "Which would purport that our cattle are in the hands of their benefactors right up to the moment of slaughter..."

"Why," Daro insisted quietly, "do you believe identifying clothing for deviates from a decent multiple sex life is a possible trouble spot?"

"Because it's humiliating," Rorki said, with the first sign of heat he had manifested. "And when you humiliate men they become dangerous..."

Daro smiled; for the first time he had actually got beneath Rorki's durable poise; then Rorki did not regard his being compelled to wear white with the equanimity he pretended. That meant Rorki was not entirely insensitive to what his fellow men thought of him. "But you voluntarily registered to wear it," he told Rorki. "You were not turned in by anyone... If you feel the way you say, why would you have done that?"

"Because this," Rorki flicked a disdainful finger at a fold of tunic, "as humiliating as it is, is less shameful than yours..."

Daro bore the older man's accusing glare. "Isn't it a little ridiculous to say that I and the majority of civilized mankind are behaving shamefully?" He added gently, "When it's obviously you who are behaving irrationally?"

"Majorities have not always been right. Some top men wear white..."

"But majorities move the group..."

"Not always." The philosopher leaned back in his chair comfortably. "Not me."

"No." Daro looked at him thoughtfully. "Rorki, you have been accused of being involved in a plot to overthrow the government."

"When haven't I?" the older man demanded disgustedly.

"You deny it?"

"Give me any examination you like," Rorki said. "Let's get this over. Hypnosis, narcosis or look deep down into my blue, blue eyes."

He was too willing. Daro rose. "Thank you for coming; I don't think it will be necessary..."

Rorki stood up, grinning, as if at the memory of how he had been brought. Then his face grew stern. "This government won't be overthrown by me, or any other man with a plot," he prophesied grimly. "It will be overthrown when more people don't believe in it than believe in it—that majority you spoke of." He raised his heavy eyebrows. "Only incumbent

governments rarely recognize, or notice a new majority until they are no longer incumbent..."

**D**ARO WATCHED Rorki swagger out of his attractive but windowless office. Windowless not so that helpless citizens in the power of the State could not escape, or make their anguish heard—but windowless at Daro's orders so that eager fanatics could not fling themselves joyfully out a window, and into martyrdoms that might endanger the State.

He frowned, sighed, and marked Rorki's interview for early recall. His assistant Milo would disapprove of his letting Rorki go so easily; but after last night with Tamal, Rorki's cynical statement about the people resembling cattle in their dependency on the State was sharp enough to make Daro very uncomfortable. Before he could defend the State effectively he would have to deal with his own feelings of guilt. That was probably the most important item on his agenda.

He completed as much as he could of that agenda and then, after dinner, headed for Starra's dwelling. His imbalance stemmed from being too fond of Tamal and he had always before found that nothing reduced a man's unhealthy fondness for one female like a close and friendly association with another female.

It was essential for all good citizens to maintain their balance; the citizen's balance was the State's stability. It was particularly important, Daro realized, for himself—both as psychiatrist and as Chief Assistant Director of Security.

With genuine approval, and a growing hope of relief from his present tension, Daro surveyed Starra's willowy, dark loveliness. Starra was a nutritionist for one of the large health conservatories; but happily—unlike Tamal—she had not the slightest interest in food.

Starra's burning interest was tone

poems created out of wordless, musicless sounds, and though Daro had often wondered in the past if he was artistically deficient, he was so incapable of appreciating the symphonies, tonight it was a relief to be required only to escort Starra to the affair.

He kissed her smooth, cool hand lightly as a token of his approval. Her tunic was of some diaphanous dark blue stuff over a lighter, almost luminous blue underdress.

She was actually, he told himself, a far more beautiful and more exotic specimen of femininity than Tamal. His detachment faded as he was unable to escape noticing that he did not have the slightest desire to touch Starra.

Troubled, he put Starra in his aircraft and flew to the Allfolks Theater, where the symphony was being held. He was so occupied pondering his difficulties the three-hour show passed all too quickly.

STARRA did not comment on his preoccupation until he brought her back to her quarters. He walked with her to the elevator and said goodnight.

Starra would not have it. "Come up with me and tuck me in," she insisted cosily; "you haven't noticed me all evening."

Daro swallowed. "I've had a very hard day, Starra." He said hastily, "The entertainment helped—but I'm still tired."

Starra raised eagle-proud eyebrows. "If you don't want to..." She shrugged.

"I would," Daro said, with what his own ear told him was too much emphasis. "But your roommate... We hadn't planned to..."

Starra looked at him coldly. "Marta is on a weekend with one of her three regular joymates." She said meaningfully, "I believe I'm your only other joy mate than some little research-girl you once mentioned... And I've barely seen you for weeks..." Her lovely features were expressionless. "You

know, Daro, for a security worker your behavior is rather questionable..."

Daro's flowing green tunic felt suddenly tight and hot. He disliked being browbeaten into making love to Starra—even more than he had disliked Tamal's insistence that he give Starra up. But he was compelled to acknowledge the truth and justice of Starra's accusation.

Submissively he followed Starra into the elevator and to her luxurious quarters high in the tower portion of her building.

He sat uncomfortably on the edge of her divan and toyed with her now-loosened gauzy tunic. She was utterly lovely, and she left him utterly cold.

She leaned toward him and kissed him passionately. "My Daro," she murmured. "A little foolish, but very handsome..."

Miserably he tried to work up some enthusiasm; it was absolutely impossible. "I—I'm sorry," he stammered. "Starra, I'm afraid I don't feel too well..."

Starra sat up suddenly and looked at him. "You were well until a moment ago..." Her eyes were very narrow.

He got up and ran spread fingers hastily through hair she had dishevelled. "I'll get in touch with you as soon as I feel better," he lied. He gave Starra a troubled nod and left; he knew he never wanted to see her again.

In his office, a couple of days later Daro wondered if he was really ill. He had stayed away from everyone and made every effort to exercise his love for Tamal but nothing had helped. It was agony to remain away from her—but downfall, he knew, to go to her.

His next interview was one Milo thought urgent and essential. Milo was supposed to screen out individuals with minor complaints; but for the last few days he had taken to insist-

ing that Daro see to all sorts of small matters, always for females. Daro pressed the button and the citizen entered.

This one was even more beautiful than any of the others had been. Dressed in the briefest of shell pink tunics the girl crossed the office with the dainty poise of a tame deer, and drew the chair closest to Daro's desk closer still. Dark lashes were so long that when she opened her eyes wide, as she was now doing, they brushed her graceful brows.

Daro listened patiently to her story of how she suspected one of her co-workers at the mill of sabotaging production in order to take over the present forewoman's job. He made notes of her evidence, told her he would look into it, and rose to terminate the visit.

She rose, too, and composedly took the one step necessary to bring them together; however instead of shaking hands, as he had supposed her intention to be, she embraced him enthusiastically.

STEPPING back after a moment she replaced an amber curl back to its cluster on top of her head and surveyed him smilingly. "I know that was rather forward of me, Director, but I felt like it. And you know the saying—"

Taken by surprise, Daro had not had presence of mind to pretend to a pleasure he did not feel; but the girl didn't seem to be angry. "Frustrate the impulse and decimate the State," he quoted automatically. Since birth-control was already under the most rigid enforcement, the saying referred to the fact that since sexual frustration was the cause of tension, and tension the cause of destructive behavior, frustration bred war—which did, in fact, decimate the State.

"Uh—" Daro glanced hastily down at his interview-list for her name, "uh—Carlotta. You're a very pretty girl, and I'm very complimented; and if I

didn't have rather a full schedule of joymates—" He broke off and took a breath. She was already out of the office; his relief was shortlived when he recalled the look of satisfaction on her face as she left.

Alone in his office Daro told his secretary to hold up his interviews. He needed to think, to know what was happening to him. His discomfort over his crime of monogamy had so far been merely psychological; it it were uncovered it would become very real.

He was suddenly aware of why Milo had been sending in all the gorgeous female complainants, no matter how small their problems Milo was testing him; that meant he was already suspect.

His buzzer sounded, his secretary wanted him. Since he had given orders he was not to be disturbed he knew what that meant. Dully, he spoke into the intercom. "Yes."

"Chief Assistant Milo to see you, Citizen." Her voice was regretful. "Now."

Daro snapped off the sound. The girl had said Chief Assistant Milo; this meant that Milo had been all ready to act as soon as his evidence was complete, was already in charge.

He glanced around the office. His attractive windowless office, which Daro had sentimentally thought of as a refuge for the poor, misguided fanatics it was his job to control; had suddenly become a trap.

He searched the room for something he might use to defend himself. For centuries, the mere possession of a dangerous weapon had been sufficient to mark a person as possessing tendencies of such violence as to render them unfit for living. There was nothing.

Daro's mouth twisted bitterly. Unless he hoped to defend himself by flinging a paperweight, his own guard would soon be forcing their way into his office to arrest him; there was noth-



ing he could do. He pressed the door release to admit Milo.

Milo entered flanked by four of the guard. He came up to Daro sneering quietly. "Citizen, you have been accused of monogamous behaviour. You, of all men, know the threat this constitutes to the State. Can you clear yourself?"

Daro studied Milo, his heart accelerating despite his recognition that the inevitable should not properly occasion excitement. His assistant looked taller than he ever had before.

The guard and Milo all stood between Daro and the door; there was no slightest chance for escape. He temporized. "Since I have apparently been removed from office without trial, isn't it a bit late to be authenticating the veracity of the accusation?"

**M**ILO BALLED his hands into fists, took a step toward Daro. "Answer the question," he ordered. "You have been removed from office—belatedly—as a result of your dangerous leniency to deviates. I am now attempting to give you fair opportunity to prove that you do not deserve to wear the white tunic."

Horried, Daro looked in the direction Milo had nodded, toward one of the guards in the rear. Over the guard's arm was flung something white. Sickly, Daro said, "Milo, you know how hard I've worked for the State—"

"Answer the question," Milo interrupted roughly. "Name at least two females who are your joymates at the present time..."

Daro wet his lips. "Tamal," he stalled.

"And?"

"And—Starra."

Milo smiled in triumph. "That is the name of the female who accuses you of monogamy!" He raised his right hand, forefinger pointing upward like a political demagogue claiming heavenly cooperation, then lowered it aimed at Daro. "Seize him, guards!"

Daro plunged toward the four men. He landed several furious blows among them but it was of no use. In seconds the guard held him securely.

Milo walked to where the white garment had fallen to the floor when the scuffle began. He picked it up and came around and stood in front of Daro.

Daro struggled, raging with humiliation. "You'd better kill me, Milo! I won't wear it!"

"You'll wear the white," Milo said, breathing heavily, though he had stayed out of the fracas. "I've learned enough of your techniques to know the avoidance of violence is safer—for me." He studied Daro for a moment and then grasped the green tunic he wore. It was a sturdily constructed garment and it took both his hands and all his strength; but finally he succeeded in first rending and then shredding it, until the tunic lay in pieces on the floor and Daro stood stripped before him.

While Milo yanked at his tunic, Daro attempted to reason with himself. He was no longer an official of the State, but he was supposedly still a psychiatrist; as such he should have enough balance to realize that disgrace is less dreadful than death. He clung to the fact that the brilliant Rorki had thought so...

By the time Milo had finished his shredding and handed Daro the white tunic, Daro had summoned up enough reason and resignation to put it on, silently.

"And remember," Milo warned grimly, "this is your warning. You'll sleep in the gas chamber if you're ever caught in public in anything but white..."

Daro got out of the building quickly, as stabbed by the pitying avoidance of friends' faces as he was irritated by the jeers of unknown detractors.

He wandered through the busy streets, trying to accustom himself to the disapproval and contempt that the

white garment of the suspect citizen automatically attracted.

Centuries ago, the government had ordained that deviates from social propriety would both be deterred and made less dangerous if they were readily identifiable. The ancient color of chastity no longer denoted the same condition, but monogamy was now considered chastity, was now not only disreputable, but actually a crime against the State.

Daro had always thought that since the punishment prevented further violence, it was a rather mild way for the State to protect itself. As he passed through the streets constantly prodded and stung by the glances he received, he realized how wrong he had been. He wondered how men of Rorki's sensitivity could stand it, and walked faster.

A PARK area offered a temporary hiding place from his disgrace. He sat down on the first bench he came to. When someone sat down on the other end of the bench, a figure wearing white, Daro realized that unconsciously he had headed for a place known to be frequented by social outcasts; he was not even too surprised to find that his benchmate was Rorki.

Rorki's face, which might have been expected to show some satisfaction at Daro's downfall, did not look happy. He gestured at Daro's garment. "I rather thought you'd come here..."

"You heard quickly..." Daro considered idly how the efficiency of communication expedited all human activities. Movements that in centuries gone by had taken years now were consummated in days.

Rorki frowned. "I was hoping I hadn't understood correctly."

"Thanks..."

Rorki said succinctly, "It's my own health I'm interested in."

Daro looked at him thoughtfully. "You don't think my successor will be the most benign of administrators?"

Rorki held his nose and jerked his head back, violently.

"Then," Daro said, trying to calculate how fast you could engineer a revolution, "let's do something about it..."

Rorki looked aghast. "I'm a philosopher!"

"You can still do something," Daro encouraged.

"And get put to beddy bye in the gas chamber!"

"Maybe not." Daro touched his tunic, said, "I've been doing quite a bit of thinking about this in the last hour. And about some things you said about majorities being there before we know they're there. And," he finished, "about some things my joymate said about others preferring to have only one joymate..."

Rorki eyed him suspiciously, didn't speak.

Daro studied Rorki intently. "Tell me honestly; why did you really voluntarily don the white?"

"My joymate made me," the older man confessed gloomily.

Daro restrained his grin. "In a way, so did mine," he consoled. He interrupted Rorki's mournful revery. "As a philosopher, what do you think would happen if it became known that some women are so loved that their men men will bear disgrace for the privilege of loving these women exclusively. Not *all* women," Daro emphasized. "Just the joymates of wearers of white are so loved..."

Rorki frowned at him for a second. "Why they'd all want—" He broke off and started to laugh. When he quieted down his bright eyes were already calculating. "We'll get some publicity... We'll go on a telenews program and confess our sinful singular devotion to the whole world..."

Daro shook his head. "Not too fast. If we do it that way, we may get quicker results; but we're also liable to get gassed. I don't want to wind up with

jus' a statue in my honor from the new government..."

Rorki raised a thoughtful eyebrow. "Then how?"

Daro looked gaugingly at the unchanging sky. "You know others who wear white?"

"They're all I do know," Rorki snorted. "Practically everybody with any brains—or sensitivity—or whose joymate has any brains or sensitivity." he corrected himself honestly, "winds up in white..."

Daro smiled wryly. "Thanks." He insisted, though, "And you say they're influential—important men?"

"So what?" Rorki shrugged. "We're still a minority; a very small minority..."

"Maybe not," Daro countered. He took a long, deep breath and exhaled slowly. "Maybe," he said slowly, "we're already a majority and we just don't know it. So," he said more briskly, "tell all the wearers of white you know to point out to their joymates how few women are so loved that their men will bear disgrace for the privilege of loving them exclusively..."

Rorki, excited, nodded eagerly. "Can do."

"And tell them," Daro added, grinning, "that under no circumstances should they let this fact leak out to women whose joymates do *not* wear white. It might hurt those women's feelings..."

**N**ATURE took its course. For the first few weeks the rush of voluntary donors of white were mostly in the Fourth Region of the North American Continent.

The government knew from the very beginning that something strange was going on, but there was obviously nothing to fear or be alarmed about. It was simply that more and more citizens came down to the Security Directorates and voluntarily signed up to wear the white tunic of the sexual deviate. It was peculiar—as peculiar as it would

have been for a lot of men to come down and demand to be put in the gas chamber, and about equally as threatening.

After the first few days, the lines to sign up were so long that citizens just started wearing white without bothering to declare it. By that time the movement had spread to other regions and other continents.

And by the time the government realized that the movement was actually dangerous to it, there were so many more men wearing white than in colors that it dared not act.

It was the most peaceful revolution in several thousand years of civilization—and revolutions.

When it was all over Daro sat, some weeks later, in the same office that had been his under the previous government. That was not odd; the turnover in administrative positions had been practically zero, since actually the government had not changed.

When the heads of government saw what the people had done they simply ruled that only wearers of white were proper citizens and entitled to hold government positions—and went out and bought themselves a white tunic.

Daro relaxed in his chair, at his desk, contentedly listening to Rorki explaining in some detail exactly what had happened to the government. He was happily aware of Milo, in a not too distant office, listening submissively to the complaints of aggrieved citizens and even more happily aware of Tamal, now legally able to procure and cook his food for him, Daro, exclusively.

Rorki looked at him, his blue eyes dark with intensity. "You must understand," he said emphatically, "all this proves nothing... Only that one kind of tyranny is over... There will merely be a brief intermission of peace and justice and the world will then move, imperceptibly but inexorably, on to the next form of tyranny..."

**T**HE SIGNAL from Daro's secretary interrupted them and Daro switched on the speaker.

The girl's voice was embarrassed. "Director Daro, there are sounds of a struggle going on in your assistant's office. I don't know just what to do..."

"Sometimes complaining citizens get pretty worked up," Daro reminded her crisply. "Send in the guard—Milo's visitor may be harming him."

There was a silence as the girl hesitated. "Well—but the visitor is a girl. A very small girl." She sounded doubtful. "I don't know whether it's right..."

Daro frowned at the speaker. "Corta, what's eating you? Why don't you want to help Milo if he's in trouble?"

There was a bubbling sound from the intercom and then Corta gained control of herself. "I think the girl is Milo's joymate..."

Daro stopped short, then grinned to himself. "Perhaps," he said into the speaker, "you should have them brought in here..."

A moment later Milo and a small, dark haired girl entered Daro's office, both of them flushed and dishevelled.

Daro asked suavely, "What's the difficulty, Milo?"

Milo waved his hand awkwardly. "A trifle, Director; I don't want to bother you with it." He put his arm around the girl, said quietly, "We'll take care of it ourselves—"

The girl wrenched violently away from him. "Oh, no we won't!" Her eyes flashed. "I want that man forbidden to wear the white tunic," she said, dramatically pointing at Milo. "He doesn't deserve to wear it! He's still seeing another joymate!"

Daro eyed Milo lingeringly. Finally, he said, "Perhaps you're right, Milo. Perhaps you had better take care of this yourself..."

Very red and silent, Milo escorted the angry girl from the room.

Alone with Rorki again, Daro smiled. "I guess you're right, too, Rorki..."

Rorki raised his eyebrows questioningly. The little drama had distracted him from the point he had been making.

"About this being just a brief intermission of peace between tyrannies," Daro reminded him, grinning more broadly. He gestured toward the door through which Milo and his joymate had just left. "And from the looks of things, the intermission is already over..."

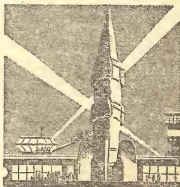
### The Strangest Voyage Ever Taken!

*What was the secret of the  
starship which would take  
these people to a new world,  
but a world from which they  
could never return? Why  
were they all listed as*

## DEAD ON DEPARTURE

*This gripping Novelet by MILTON LESSER  
leads off the New, Pocket-Sized, October*

## FUTURE SCIENCE FICTION





# VOTING MACHINE

This election, Foster figured, was really sewed up tight. A machine which would not accept the votes of "unstable" persons couldn't tell why any given voter was upset — couldn't tell a crackpot from a member of the indignant and outraged opposition . . .

by Jim Harmon

illustrated by Paul Orban

CARL FOSTER stood before the dirty window, chewing a thin cigar and looking into the busy, narrow street two floors below him. His attention was on the undersized building, a half block away, that was serving as a polling place this year. He looked away from the unhandsonely stained glass to his own thick wrist.

Six o'clock, his Chrono indicated. It did not have to tell him that this was the afternoon before Election Day, 1962, although it did. His eyes left the face of the luminous dial, and saw that his silk French cuff had collected some of the dust and grime of this elevated train part of the city. It was all dust and dirt, he thought—especially the people. But they could vote; he never forgot that.

Foster buried his fingers into the soft tobacco of the Havana. His mouth twisted, and he blinked away the sting from his eyes; Election Day always rubbed his soul the wrong way. They were going to decide whether he, his party, and his candidate were going to stay in power, and they didn't know what they were doing. Their vote depended on how they felt on waking up; how the toothpaste tasted; and whether the bacon was burned. The voters didn't know a thing about government, or what was good for them; they didn't realize that an administration which

took bribes and allowed gambling saved them money on taxes.

They were just human monkey-wrenches stumbling around the delicate workings of a useful machine, Foster thought. Individually, they were little or nothing, but he could guide them away from the dust and dirt if they would only let him. Yet they continued to make their same mistakes, and every election day Foster had to count on chance, and the luck he could make himself. He wished again that he could deprive them of the right to make mistakes.

He sighed, coughed cigar smoke, brushed at his eyes with a heavy hand, and sat down on the edge of the brass bed, covered with a faded pink bedspread; it creaked ominously and intestinally. He ground the cigar to shredded brown leaves in the tray on the bedside table, staring at the black phone all the time. Its grimy mouthpiece represented all the world's germs to him, just them, and he no longer felt lucky about finding a boardinghouse room with a private phone. The instrument seemed sullen and unfriendly.

Foster chuckled deep inside. He was thinking too much about thinking machines. With only a slight twinge of unacceptance, he picked up the phone and put it to his ear.



He picked a shred of sweet tobacco from his lip, and forced a blunt finger into a hole in the dial. Carefully, he dialed an unlisted number. He listened to the rings echo, and traced what was happening with his mind. The party worker cruising a few blocks away would pick up the car's Moblephone; now he would be putting the headset against a second Moblephone, mouth to receiver. They had to be careful of wire-tappings. But it was not happening according to schedule; leaning forward in concern, Foster wondered if he'd better break the connection, and try—

"Hello," the voice said in his ear.

**F**OSTER said easily, "Hello, Ernie; somebody's slow on this telephone deal. You and the boy in the car had better speed it up. I may need to contact you fast."

"I'm afraid I was busy, Mr. Foster." *Honest*, thought Foster; he liked that,

to a degree. "Are you all set there?" Ernie continued.

"Okay I guess; nothing much to see yet. I thought they might be scouting around, picking out spots for last minute propaganda, and that kind of thing. Don't seem like it. I've been wondering why I'm here myself."

"I'm sure you had a good reason," Ernie said doubtfully.

Foster felt the tobacco-taste in his mouth.

"Sure Kid, you can bet on it," Foster said, fishing a cigar out of his breast pocket. "I like to keep my eye on the voters and the opposition all the time. Besides I'm not any good around headquarters Election Day—remember that reporter I slugged? No, I guess that was before you came to us. Anyway, here, I can watch things right. The voters and the opposition—you can't trust either of them; remember that, Ernie."

"Say, Kid," Foster said as he drew

the first breath of heavy tobacco, "I haven't seen a paper since morning..."

"Would you like me to bring you over the late editions?" the young man asked as Foster finished drawing the cigar alight.

"No, no, Kid, just read me some. Give me a picture, you know what I mean?"

"Right. I've got the papers here on the desk. Just a second, Mr. Foster." It wasn't even a second. "Here they are. Hmm, well, the dominant factor would seem... That is, the most important one is Major Fitzgerald's paper."

"Damned old fool," Foster snorted smoke. "He couldn't be right if he tried."

"There's a big color-cartoon on the front page. It shows a monstrous robot, with a head like the new voting-machines, leading a little man in chains labeled "Mr. Citizen". There's a fat politico labelled as our party, holding his sides and laughing at the sight. It's labelled *The Man Who Sold his Birth-right To A Mess of Pots-and-Pans*."

He blew smoke into the phone's mouthpiece. "How else does the Major stack it?"

The young man cleared his throat before continuing. "The lead story, says just what the cartoon does: that by allowing the voting-machine to judge who is psychologically fit to vote, and even to cast a deciding vote in case of ties, we are sacrificing our freedoms. The rest of the front page is devoted to some pretty obvious but well-timed releases about the Alaska plane crash, auto accidents, and a train derailment."

FOSTER'S mouth twisted and he blinked his eyes. "Old fool! We been using voting-machines since 1892—they started using them in New York then—and we been using lie-detectors since 1895, and the electronic calculators since 1946. So what's wrong with combining them in 1962 to produce an

accurate way to weed out the morons and the—the temporarily insane? Don't the constitution deny the right to vote to the feeble-minded? Cripes, with the way everybody and his brother are going off their rockers these days, the public has a right to some protection from the loonies."

Ernie laughed gently. "You don't have to convince me, Mr. Foster."

His big hand clenched around the phone. "I'll convince you anytime I like, Ernie; understand?"

"Yes, Mr. Foster," Ernie said mildly.

Foster frowned. What *was* he trying to prove? The kid knew he was boss. "All right, Ernie; what do the other papers say."

"Well," Ernie's voice continued as before the interruption, "The Randolph papers are on our side, of course. They don't make an issue of it on the front page, but there's several little things through the paper... Just a minute, Mr. Foster, I'm leafing through it now. Yeah, on page three there's a story about one of those new Mechano-Pup toys leading a 4-year-old boy out of his burning home."

"Let me get over to the features, now—there's several things there. The Woman's Page columnist compares the right to let the voting-machines cast a deciding vote, in case of ties, for the candidate with the most stable supporters to women's suffrage—the, ah, 'emancipation of our faithful slaves'. The editorial writer has about the same thing to say. Hey, I know him—that's Tom Celtnek—good man. Yeah, and finally Wild Bill Starr has his life saved by a robot in the comic strips. Most of the other papers stack up with either the Major or the Randolph chain. Want me to read you those, sir?"

Foster didn't have to ask how the papers felt about the candidates; party lines were too clearly drawn. The big question this year was not how the voters would vote, but which votes would be accepted as sane, reasonable

decisions. "No, I guess that stacks it, Ernie. You got things ready for the big day?"

"Sure," said Ernie; "Helen's got all the women organized."

"They know what they're to do?"

"Yes, they know they're supposed to make all of our voters we can round up lie down for five or ten minutes and drink a cup of tea before going on to the polls. That 'tea' part is going to be hard to do in this part of town; ninety proof or anti-freeze would make it easier. I know you've got a good reason for this, Mr. Foster, but I don't know what that reason is."

Foster smiled, and let smoke drool out of his mouth. Pretty smart kid—college education and everything—but Carl Foster could still tell him plenty. "I guess I can tell you, Ernie. I've got a lot of brains—best money could buy. They tell me that these voting-machines work by *layers*; they test the first level and if it seems normal, they won't probe below it. Of course, my experts may be wrong, but I'm betting they're right. They also tell me that if the voter is calm, untroubled, relaxed, the machines will pass him right then; they're looking for wild-eyed crackpots. That's one of the reasons we supported the machines. The 'outs' always feel more fanatical than the 'ins', and *we're* the 'ins'. One of the things that's going to keep us in, is calming down our people with that cup of tea. Understand?"

"You're smart, Mr. Foster," the younger man said, and there wasn't any doubt he meant it.

"Just remember that, Ernie, and you'll go a long way," Foster told him. "I'm hanging up, Kid; got to get to sleep so I can start off early tomorrow." He slammed the receiver down immediately, and swung his feet up on the bed.

Absently, he wiped his mouth with a display-handkerchief; no telling about that phone, he thought. He wiggled his toes out of the shoes, and kicked the

oxfords lightly off the faded bedspread. Shutting his eyes, he laid back into the lumpy softness of the bed. He wasn't sleepy, but he had to get to sleep so he could wake up before the polls opened. Deliberately, he let the tension go out of his body and breathed deeply.

In seconds, he was asleep.

**H**IS FAVORITE suit would be as wrinkled as a piece of burlap, Foster thought first on waking to the filtered morning light. Next he became aware of the uneven resilience beneath him, and the sore tickle in his throat, simultaneously. Environment and its effect. With a grunt, he got to a sitting position on the bed; he ran his fingers through his hair and decided to gargle first. As he put his stocking feet on the cold floor, the phone rang.

He grabbed up the receiver. "Mr. Foster—" Ernie began.

"Call me back," Foster said.

As he started to lower the phone, he heard Ernie say, "This is important."

The kid knew when to contradict him. It *had* to be important. "Okay," he said.

Foster sat down on the bed, and slapped his breastpocket for a cigar, finding he was out. He listened.

"They're going us one better," Ernie's voice said. "They're using narcotics. Dope."

Foster let that one sink into his early morning brain. "Dope," he said after a second. "You mean they're shooting their votes full of 'H'?"

"Nothing like that yet. We found out that they're putting a mild sedative in the tea *they're* giving out."

Foster laughed shortly. "*Copping* our idea and going us one better, huh? Well, if they're going to send sleep-walkers to the polls, we'll send zombies! Get some morphine over to party headquarters; have the Health Department cover it up as inoculations against the Plague or something."

"Pneumonic vaccinations coming up. Goodbye, Mr. Foster."

Foster dropped the phone back in its cradle and laughed again. When the Master Computer V-49 examined the results for the party voters in this city, it would think it had come across a new standard of mental stability.

He started for the bathroom, but stopped by the brown suitcase on the chair. He snapped it open, rummaged through it, and brought a tinfoil package of cigars out. With the pack in his coat pocket, he continued towards the door, conscious of the tickle in his throat.

THE TELEPHONE rang again as he stood by the window, watching the twisting lines going and coming from the polling-place a few shadowed doorways down the street. Foster marched across the room, and ground out the fire in half a cigar, as he picked up the phone with his free hand. "Ernie?" he asked.

"More trouble, Mr. Foster," Ernie told him.

"All right, Ernie. Get to it."

"Every mainliner in town is after a free shot, and most are coming back for seconds. The world's got around some how; if we refuse them, they're going to give us trouble."

Foster scratched his beard-rough jaw. "I can't see anyway around it, Ernie. If you give one an overdose and let him die, it might scare off the others; but it would cause an investigation, too. Let it ride. Say, are the boys on the other side following our lead on this one?"

There was a silence from the other end of the line. "No, Mr. Foster; the sedative was as far as they would go. But our stoolies say it's because they really don't think they can fool the machines with the doped condition."

"They're just scared to go all the way and are alibing themselves ahead of time. They'll find out when that V-49 gadget in Washington gives the final results; our boys in the other

cities are smart, too." Foster paused and thought a moment, the scent of Havana tobacco drifting to him. "Ernie, the polls will be closed in a couple of hours, and they'll start showing the results on teevee. Send Helen over to keep me company; I don't like being by myself all night."

A very long silence came out of the phone, shadowed with the faint crackle of line static. "Helen's living at my place now, you know, Mr. Foster," Ernie's tight voice suddenly gushed.

Foster's big hand closed around the phone; his head felt hot. The Kid was telling him to lay off Helen. Didn't he know the *power* Foster had? Abruptly, he laughed; the Kid had guts, standing up to him, and he needed men with guts. The important thing was that he had been scared when he talked back to him. As long as he was scared, it was all right. "Relax, Kid," he said. "You know what the doctor told me. No exertion, not for six months yet; now send Helen over."

"Yes, Mr. Foster," Ernie said.

Foster hung up. Anyway, Helen's virtues were too inconsistent to risk it. He was always sure of the virtues—and health—of his women; he got medical reports.

He sat down on the creaking bed and regarded the faded spread. He wondered if Ernie could really *like* him if he was that scared of him; Foster liked the Kid. Hell, it didn't matter; even if people didn't like him, he could *make* them *act* as if they did. Foster frowned, and groped for something in his mind; there was *something* there, something that said it wasn't quite the same.

HELEN CAME in at six. She was wearing a yellow sweater combination and a short full skirt, filling both well. Her brown hair needed smoothing up, and sweat gleamed faintly but not unattractively on the youthful lines of her face; the marks around her eyes and mouth made her look sensual. Without speaking, she walked across



the room and dropped into the easy chair with an audible sigh.

"Hi, Doll," Foster said from where he stood at the window. "Beat?"

"Man," she whispered, "I've got an edge on as sharp as a knife."

He was prepared. He walked over and offered her a pack of cigarettes. They had been drenched in a non-habit-forming synthetic drug; he didn't know whether she knew it or not.

She looked up, selected one, and leaned back with it in her mouth. Foster brought out his lighter, sparking it alight. He put his hand on her shoulder and applied the fire to the cigaret. His hand moved down.

Helen jumped to her feet. "For God's sake, none of that, Carl. I've been on my feet all day; I'm *tired*, understand, *tired!*"

"Sure, Doll, sure," he said smoothly. He had too many big fights to worry about petty grudges, he told himself. But he wondered if she would be that tired with Ernie; he'd have to see into that.

Helen sat back down. "Well, if we don't play *that* game, what do we do until the election results start coming in?"

"Wait," he said.

The television set cast its blue light on the room, and the images wavered under electronic water, darted to the left, then the right, and finally steadied.

"Old set," Foster complained. It was ridiculous anyway; *everybody* getting the results the same time as the party. The voting-machines made results public property; there was no chance even to shift votes from a strong district to a weak one.

He looked at Helen sitting in the chair; the odd sleepy look in her eyes told him all he would have to do now was suggest the bed, and she would be in it. She had no inhibitions now. Somehow that was enough—knowing he could have her if he wanted her.

The brilliantly-colored three dimension station identification came on, and quickly changed back to the somber black-and-white image of the announcer and the black-board behind him.

"As you all know," the announcer explained condescendingly, "this is the first year we have employed the new psychological voting-machine in the United States. I certainly hope none of our viewers had their votes disqualified." He chuckled feebly. "Because of this new method of voting, and even tabulating votes, we don't know exactly how long it will take to get the final results; but we will stay on the air until victory for one party seems assured and get the conceding of victory speeches if possible.

"For those of you who haven't read the details in papers, this is exactly how the votes will be tabulated this year: actually; no votes will be disqualified on grounds of incompetence, because such votes will not be accepted in the first place.

"Some people have suggested this constitutes a rule of the intellectuals. Nothing could be further from the truth; virtually all intellectuals, and those with genius-ratings, show strong neurotic tendencies, so they might as well not bother to vote at all. Now some might say that this deprives them of their constitutional-rights; but the constitution denies voting-rights to the feeble-minded, and the Supreme Court has determined that any form of mental instability can be classed as feeble-mindedness..."

FOSTER stopped listening to the tee-vee announcer. He knew the rest about how the voting machines would count the votes, then pass them on to the Master Calculator V-49 in Washington, and how the machines could break ties all along the way by casting a vote for the candidate with the most stable voters. Scare-politics at a time of a rising insanity rate—Foster was

at once alert. The announcer was staring at a piece of paper in his hands.

"Yes, the final results," the announcer repeated. "Those machines are faster than we thought. And here are the results—" He lifted his hand, cueing on a blast of canned music. He opened his mouth and stared at the paper again.

Static tore the picture and sound to pieces at that moment, and Foster heard the drone of a large truck from the street below. His legs were cramped with tension as he moved towards the set; it had been so many years since he had seen static on teevee, he didn't know what to do. In desperation, he slapped the side of the ancient set with the palm of his hand. The screen flared up to an intense brightness, then faded to absolute black.

His head was hammering as he turned to Helen and saw she couldn't offer him any suggestions. Then he saw the phone.

If was long moments after he had dialed the unlisted number, before he heard the click from the other end. He almost didn't have to ask the question then; there were no sounds of excitement from the other end. But he asked, hoping he was mistaken. "Who won, Ernie?"

Through the hammering in his head,

he was only half aware of Ernie's voice. "Do I ever joke?" Foster demanded.

Ernie was saying something else. "I raped her three hours ago!" Foster shouted, half-wishing it were true now. "I'm warning you, Kid, get with it: *who won?*"

Ernie told him. Foster felt for a cigar numbly. "You—you don't mean *President*? Yeah, uh, yeah." He hung up, staring at the blackened television set, waiting for it to sarcastically ask for the results.

Instead, it was Helen. "Who won, Ernie?" she asked dreamily, disinterestedly. "I mean, Carl."

Everything had been taken away from him, but he could still see an empty humor in it. "Master Calculator V-49," he said to her finally.

It was kind of funny; everyone must be a little crazy. The machines had to have things perfect, neat and clean. He should like that; he liked things clean. But he wouldn't have another chance to make them that way himself. V-49 didn't make mistakes and Carl Foster did. Funny, he kept thinking, and couldn't stop thinking. Now there was a political machine that could beat his own.

Funny, and he wasn't laughing; he never did when the joke was on him.



## THE RECKONING

Here's How You Rated The  
August Issue

The one author this time who received cheers but no sneers from you dread judges was Winston K. Marks. Despite the dissent from some, however, Ellanby has a clear title to first place. Here's how you placed them:

1. POLAR PUNCH (Ellanby)	2.90
2. REBELLION INDICATED (Henderson)	3.54
3. EARTHFALL (Nelson)	3.80
4. FIVE SCOTCH STORY (Cox, Jr.)	4.30
5. THE WATCHERS (Banks)	4.90
6. TRIO (Marks)	5.40
7. THE SEEKER OF TITAN (Van Riper)	6.00
8. T. D. P. (Spencer)	6.60

You've heard of at least two "oldest professions", but here is a third which antedates the others.

# THE ELDER PROFESSION

## SPECIAL ARTICLE

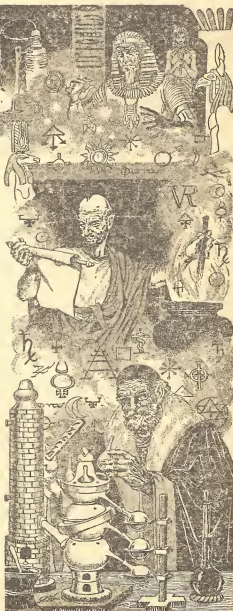
L. Sprague de Camp

**T**HE OLDEST profession is not what you might think. It is magic.

Now, just what is magic? Is magic a kind of science, or vice versa? Is the magician the poor man's scientist, or the scientist a grown-up magician? Do savages make scientific discoveries? Does relief in magic imply mental inferiority? Why, in this scientific age, isn't everybody scientific?

The question of the origin of science is basic to any large view of the cause and cure of civilization; but consideration of the origin of science takes us back to magic. The two hardly began to be distinct before 1500, and their separation is not yet complete.

The origin of science already has a considerable literature. There are stories of how Ug, back in the Pleistocene, discovered fire, the bow, domes-



illustrated by Kelley Freas

tication of animals, and monogamy all in one lifetime. Scientists and pseudo-scientists argue whether the Mayas could have thought up their civilization themselves, or whether they got it from Egypt or Atlantis. We've all heard of the medieval scientist who was persecuted as a magician by the Church. There are stories about how in the future, after science has blown civilization off the map, a handful of our savage descendants will pick up the thread of discovery and recommence the process.

Ug left no memoirs, so we have to infer his behavior from archeological relics and the actions of modern primitives.

Here is a difficulty: scientific social anthropology began less than a century ago with Bastian and Ratzel. Only since then have primitives been under the kind of expert and sympathetic observation that is required to shed light on our problems. A century is not very long in the evolution of a society. So the existing literature on primitive societies is not a long-term history of any tribe. It is, rather, a static cross-section of the condition of savage societies in the late 19th and early 20th centuries.

Generalizations about primitives are very risky. Tribes and individuals vary widely. A primitive may be bright or stupid, cheerful or dour, sober or dissolute, industrious or lazy, skeptical or credulous.

It seems safe to say, however, that one of the most basic and ubiquitous changes in cultural evolution is the specialization of professions and social classes. The first class to be differentiated is that of magicians. The Australian blacks and the more primitive of the Eskimos have magicians, but no other professionals. "Magician" is perhaps a narrow term for such people; the professional man may serve in addition as the tribal priest, physician, poet, historian, and scientist.

Who are the primitives? When we

look over the societies into which humanity has articulated itself, we find that they fall into two fairly distinct classes. There is a small class of large societies with a high development of the arts and sciences—usually including writing and metallurgy—and a large class of small societies with less elaborate development of the arts and sciences, lacking either writing, or metallurgy, or both. There are also borderline cases like the Peruvian Indians, who lacked writing but had a well-developed architecture, statecraft, and economics.

Let us take the small, technologically simple, non-writing societies of today as "primitive". Most of their people are distinguished by narrowness of outlook, parochialism, conventionality, and conservatism. By "narrowness" is meant simply that primitives in general do not concern themselves much with things of long ago, or far away, or in the remote future. Their parochialism is the quality that causes such bitter hostility between soldiers and the "dirty foreigners" among whom they are quartered. Their conventionality is the same thing as that of Queen Victoria; their conservatism is that of Confucius and the D.A.R.

Primitive conservatism is, however, relative only. Primitives can effect sudden and drastic changes in their own tribal life. Examples are the adoption of the horse by the Plains Indians, and their consequent abandonment of agriculture for hunting; and the abolition in 1819 by Queens Kaahumanu and Keopuolani of the native Hawaiian religion.

Seen thus, primitives do not look so different from most civilized men. Perhaps the nearest thing to the social atmosphere of a primitive society available to most of us is that of a small village, of say a thousand inhabitants, not in a rough and changeable frontier community, but in a long-settled region far from cities—as in Vermont or

South Carolina. Here everybody knows and minds everybody else's business. Details of conduct are minutely regulated by public opinion. People pride themselves on doing things the way grandfather did them.

This is not to condemn such a way of life, which has its advantages. But such an environment is not congenial for a person of restless, original, or iconoclastic temperament. Such a person in an American village usually emigrates to a city; but in a primitive society there is no city to go to. So an individualist must either adapt himself, or live at outs with his tribe, and probably be expelled or killed eventually. Or, if he has sufficient ability, he can dominate them by specializing, which for practical purposes means becoming a magician.

A MAGICIAN usually enters upon his profession after an initiation more rugged than those of college fraternities, and often after a long apprenticeship as well. Unless he belongs to one of the rudest tribes, he probably has to join a secret society. This may be a political organization like the West African Egbo society, of which the magician is a club official like the treasurer. It may be a priesthood having specialized jobs such as exorcist, like the Whare Kura of New Zealand. It may be a magicians' trade-union like the North African Sirri.

The magician's stock-in-trade includes doctrines, methods, and material properties. The doctrines consist of a cosmogony and mythology of gods, spirits, little people, monsters, and other supernatural beings, and stories of creation, catastrophes such as deluges, adventure, and romance; rules for imposition of tabus and interpretation of omens; and a system of getting desired ends by propitiating gods, coercing or interrogating spirits, and manipulating impersonal supernatural forces or fluids.

The methods are religio-magical

rites and formulas for helping the magician and his friends, clients, and fellow-club-members, harming their foes, and defending them against supernatural attack. They include curative medicine, because sickness is generally attributed to spirits or witches.

"Witches" is an ambiguous term. Among magicians there are some bad characters, or illegal and irregular operators, corresponding to the similar fringe among civilized professions. These are called "witches" or some synonymous term.

In the mythological doctrines, on the other hand, there appear evil supernatural beings somewhere between human beings and evil spirits, also called "witches". Sometimes the latter are quite inhuman—like the witches in the Iroquois myths who spend their time in the curious occupation of magically turning passersby to skeletons. Others show some resemblance to the real "witches". The mythical witches are commonly credited with power of flight, lycanthropy, vampirism, and cannibalism. Confusion between the real and the mythical witches, and an exaggerated interest in witchcraft, will sometimes combine to produce that frantic terror of witchcraft, and sadistic eagerness to torture and kill suspected witches, that featured life in ancient Babylonia, Reformation Europe, and nineteenth-century India and Africa.

The properties are substances to be used in magical operations, such as herbs, minerals, and parts of animals and people; or objects to which supernatural power has been imparted, such as fetishes, amulets, wands, and magic weapons.

Nearly all primitives use a little magic—for that matter so do most civilized folk, even if it is only knocking on wood.

Tribal magic varies. The Tanala of Madagascar had an intense interest in magic, and were constantly engaged in magical operations against those whom



they disliked, with the help of the local *ombiasy* or professional magicians. The truculent and uninhibited Comanche Indians nearly all tried to acquire supernatural power, though it was considered unworthy of a warrior to attack another Comanche by magic. When they became too old to fight, many Comanches gave up their powers. Others continued to increase them, and contended in magic with other old men in a spirit of amateur sportsmanship. Alternatively, some Polynesian tribes are said to have little interest in occult matters.

**I**N DESCRIBING the geography of magic, we must again be very cautious. Before the 16th century the cultural map of the world was more stable than it has been since. Beginning around 1500 an enormous overseas expansion of the European peoples caused the extermination of many primitive tribes, the herding of others into reservations, and the breaking down of primitive cultures—a process not yet complete but proceeding apace.

In the year 1500 the supernatural map of the world looked somewhat as follows: In the Eastern Hemisphere there was a Main Civilized Belt that included Europe, North Africa, southern Asia, China, and Japan. In the Western Hemisphere there were two more-or-less civilized areas, in Mexico and along the west coast of South America. Elsewhere the world was occupied by hundreds of primitive societies.

The primitive societies fell into two major and several minor groups. One major group comprised Africa south of the Sahara, and Madagascar. We might call this "Grigriland", *grigri* being a West African word for fetish. Supernaturalism in Grigriland showed the following characteristics: high development of worship of ancestral spirits, specialization in the supernatural professions, virulent witch-mania, and high development of the art of making

fetishes—that is, objects which effect magical results by means of an attached or imprisoned spirit.

The other large area comprised North Asia, and the Americas outside the Middle American and Andean civilizations. We might call it Shamania, a shaman being a Siberian (Tungus) magician. Its characteristics include comparative lack of magical specialization, high development of necromantic mediumship, considerable religious mysticism, frequent use of the drum in magical operations, frequent association of magic with sexual abnormality, and strong belief in controllable, impersonal, supernatural forces or fluids—called *mana* by Pacific Islanders and "animal magnetism" by Mesmer and his followers. These distinctions are not absolute; we can find plenty of fetishes in the Americas, and spiritualistic mediums in Africa.

The remaining primitive areas were smaller regions; enclaves in the Main Civilized Belt (as in Southeast Asia), Australia, and islands in the Pacific and Indian Oceans, all with their own magical characteristics. We might mention the very primitive Australians, who cast spells by pointing a bone at the victim while he sleeps; and the remarkable Dukduk Society of New Britain, whose leaders terrified the tribes with horrid tales of spooks, but who were themselves materialistic atheists, regarding all supernaturalism as a fraud useful for keeping the masses in order.

**A**S AN EXAMPLE of an elaborate magical operation that illustrates several characteristics of both primitive and civilized magic, in the late 19th century a Batanga of West Africa told the missionary R. H. Nassau how his tribal magician used to prepare a war-fetish. A house was built several hundred yards from the village, to which the magician retired for two days to prepare his materials and consult the spirits. Then the doctor as-

sembled the warriors at this hut. He sent one to get a red amomum pod from the forest, and another to fetch a special pronged spear.

Then the doctor, taking one companion, went far into the forest till he found an *unyongo-mualele* tree. He chewed the amomum seeds and spat them against the tree, saying "Pha-a-a! The gun shots! Let them not touch me!" He climbed the tree and rubbed off pieces of bark, which were caught by his assistant in a basket. The process was repeated with a *kota* tree.

When the doctor returned to his house, the men fetched a large iron pot. That night the magician stripped naked and took two men to a new grave, which he opened. He cut off the corpse's head, saying in a hoarse growl: "Corpse! Do not let anyone hear what I say! And do not injure me for doing this to you!" He brought the head back to his house on the point of the special spear.

There he twisted off a cock's head and caught the blood on a large fresh leaf. Some of the blood was allowed to drip into the pot, into which were put the corpse's head, the spear, bullets for the magician's gun, and water. The water was boiled, and the doctor dipped a bush-cat skin into the pot and sprinkled the warriors with it, saying: "All of you, this month, do not go near your wives!"

The warriors spent a month practicing war songs and dances. Then the magician mixed the blood that had been collected on the leaf with powdered red-wood, tied up the mixture with the corpse's head in a flying-squirrel skin, and hung the bundle up in his house. Next day the men gathered, and tore a fowl and some plantains apart with their fingers. The pieces were put in a pot, which the doctor cooked and all ate. Then the doctor opened his bundle, and with *kimbwambenje* bark smeared the mess on the chests of the warriors, saying: "Let no bullet come here!"

He then led them in procession through the town, calling on the townspeople to shoot him to prove his invulnerability. The warriors shouted "Budu! Hah! Hah!", which did not mean anything, but was "only a yell". At an appropriate point a confederate fired a blank charge from a gun at the doctor. Everybody danced, and the magician annointed the remaining townspeople from his bundle. The warriors marched off to war; the doctor stayed safely behind to watch the bundle.

**NOTE THESE** features of this ceremony:

(1) *Withdrawal and return.* A preparatory period of solitude is necessary before any major magical operation. It was, for instance, required by the medieval grimoires of magical textbooks.

(2) *Rare ingredients.* The doctor gets the bark of rare trees. In some spells the ingredients are scarcer yet, such as the skull of a parricide. They remind one of the chain Gleipnir of Norse myth, forged by dwarves from the footfall of cats, the breath of fishes, the beards of women, and other uncommon things.

(3) *Bluff.* The magician brusquely orders the corpse, the trees, and the universe generally to help him, as if they were all subservient human beings. In the legend of Canute and the tide, the courtiers took a similar view of the responsiveness of inanimate nature to human wishes. People still talk to their dice or shout encouragement to the horse on which they have bet.

(4) *Special speech.* The doctor's growl in addressing the corpse is paralleled by the squeaky tones of shamans at their seances, and the use of special tones and stilted and archaic language in magic generally.

(5) *Shock technique.* The corpse's head is an example of magical props used to frighten or disgust, on the

sound principle that the client's suggestibility is increased by arousing his emotions, no matter how. Similarly the grimoires called for such repellant objects as a bat drowned in blood.

(6) *Special costume.* The wearing of an ordinary business suit or G-string, as the case may be, seems inappropriate for the practice of high magic. Hence such operations generally call either for nudity (as in this case) or for special costume. The latter ranges from feathers, shells, and other primitive foofaraw to the turban and robe of modern Western occultists. Nudity also runs through magic. Pliny recommended a naked virgin for a tumor-removing spell. Cagliostro is said to have delivered occult sermons naked (he must have been a sight, with his globular figure) to audiences of naked female clients. In Western magic nudity has if anything greater significance than in most societies, because the strict nudity tabu of Western Society (derived from the Syriac civilization via Judaism and Christianity) gives ceremonial nakedness a Minsky appeal that it might not have in, say, Japan.

(7) *Sexual tabu.* The tribesmen must be continent for a month. Sexual restrictions, often associated with sexual abnormalities, are practically congruent with magic. The grimoires and Yoga books unanimously agree that the first thing to be given up in the pursuit of the higher wisdom is sex. Nearly every great historical wizard and occultist from Alexander of Abonouteichos to the late G. W. Ballard either was himself sexually peculiar, or imposed sexual rules on his followers, or both. Nostradamus was one of the few happy exceptions. Herodotos notes the "Enarees or woman-like men" among the Scythians, who practiced divination with strips of linden bark. Mme. Blavatsky devoted thousands of words in her books to railing against sex; her disciple Charles Leadbeater was in constant hot water with the law over his sexual practices.

(8) *Gibberish.* In addition to foreign and archaic words with which to impress clients and spirits, the diligent sorcerer uses made-up vocables like our Batanga friend's "Budu! Hah!", or the following noises from the grimoire called the "Key of Solomon": "Amor, Amator, Amides, Ideodaniach, Pamor, Plaior..." The magician no doubt reasons that since neither demons nor suckers can understand these words, both groups will assume that the words mean something dreadful, and will be properly cowed.

(9) *Legerdemain.* The "shooting" of the Batanga doctor is of a piece with the miraculogenous devices that Heron of Alexandri invented for the Hellenistic-Egyptian priests, and the self-playing guitars of modern mediums. The magician is not necessarily a hypocrite, but he likes a few reliable tricks to fall back on in case the spirits prove unresponsive.

(10) *Excuses.* The doctor prudently imposed on his men a sexual tabu that would probably be broken. If the army was defeated, he could always attribute the reverse to that cause. The occult fraternity is careful to make magic difficult, to keep down competition and to provide excuses for failures. The magician has to practice unattractive austerities; spells are made difficult to memorize; rare ingredients are required, like Pliny's ghost-repellant that incorporated the hair of a hyena caught in the dark of the moon. The magician claims vast powers, but he also peoples the world with hostile demons, ghosts, and witches, who can be blamed for failure. Similarly the creator of Superman made his hero so mighty that human villains were the merest pushovers, and the cartoonist was forced to invent super-villains of transcendent power to enliven his strip.

I could quote many accounts pointing similar parallels between primitive and civilized magic. The seance of an Eskimo angeqoq differs from that of a Philadelphia medium only in details.

Their only fundamental differences are those implied by the invention of writing, and the fact that modern civilized magic borrows terminology from the sciences, and talks of "vibrations" and "magnetic currents".

WE HAVE no real "history" of primitive magic, for obvious reasons. What information we have implies that the primitives from whom we are descended had at one stage in their history a magical system similar to those of the most primitive peoples of today. The Neanderthalers, who were not even of our species, buried their dead with tools and weapons. This indicates that they had the afterlife concept, and gave the corpse implements so that the ghost could use the ghosts of the implements in the spirit world.

The Cro-Magnons not only practiced burial, but also assisted their hunting by an elaborate system of sympathetic magic in which handsome pictures of game animals were painted on the walls of deep dark caves. A bison pictured in the cavern of Niaux had spears sticking into it, in accordance with the well-established magical principle that effects resemble their causes. Hence to stick a real spear into a real bison, you first draw a spear sticking into a pictured bison; to cause rain you sprinkle water with an incantation.

Among the most primitive peoples of today, such as the Australians and the African bushmen, we find the main divisions of civilized magic well developed: the two kinds of magical operation, divination and thaumaturgy (wonder-working); and the two methods of operating, sorcery (control of spirits), and sympathetic magic (manipulation of impersonal supernatural forces).

As nearly as we can reconstruct the development of magic by comparing modern primitives and the histories of civilizations, it runs something like this: First (as in Australia) the only

professional class is that of the magicians, who are also the tribal sages. Such government as there is is exercised by a council of all the old men. The tribe is divided into age-groups, with rites of initiation on graduating from one age-group to the next. In time the tribal magicians and their friends begin to restrict membership in the oldest age-group, which thus becomes an exclusive occult-political fraternity that rules the tribe, as in Melanesia.

Further specialization separates political from supernatural functions, and we get a chief, who should be a man of action who administers, and the magician, an intellectual who advises the chief and is often the power behind the throne. Then the functions of magician begin to split up. There exist official magicians, unofficial but legal magicians (whom we may call wizards) and illegal magicians (witches). This is the state of affairs in Bantu Africa.

Not all the inhabitants of the primitive spirit-world are of equal puissance. The primitive sorcerer treats them as he would men: the minor spirits can be bossed, but the most powerful ones must be coaxed, flattered, or bribed. Spirits of this latter class come to be called "gods", and the art of dealing with them "religion". A God (capitalized) who differs qualitatively as well as quantitatively from other spirits is a sophisticated civilized concept.

In a primitive environment, supernaturalism may be the only outlet for intellectuality. Hence the professions of priest and magician attract those who in a civilization would become scientists, philosophers, and idea-men generally. These men speculate on such large topics as the origin of the universe, the nature of life, and the cause of disease. Maori philosophers preached a four-element theory of matter virtually identical to that of Empedokles of Agrigento; the Oglala Sioux speculated about the divine symbolism of the circle in a manner worthy

of Plato at his most Platonic. The theories thus evolved are usually wrong and rarely right; in primitive medicine like quinine, buried in a vast body of useless or harmful practices.

**T**HE PRACTICE of religion is taken over more and more by the official supernaturalists, who are then called "priests"—though they may retain magical functions, such as exorcism, almost indefinitely. This is the situation in ancient Egypt and Babylonia, and in modern Tibet and Japan. When the priesthoods become highly organized, with centralized hierarchies and uniform doctrines, as in Mazdeism and Christianity, they are likely to try for a complete monopoly of supernaturalism by suppressing wizards and witches and competing religions. No such effort has been completely successful.

Then comes the rise of organized secular science. This began in the eastern Mediterranean in the Hellenistic Age. The first try proved abortive; but a new beginning was made in Western Europe in the 16th century, and this time it stuck. The result was the separation in many countries of church and state, and a decline in the prestige of all supernaturalism, magical or religious. The latest step is for a secular-minded government, as in the U.S.S.R., to try to suppress all supernaturalism whatever. In view of the failure of the Christian and Jewish religions to wipe out magic, however hard they tried, the annihilation of religion *and* magic by science-minded politicians seems remote.

This is a much oversimplified explanation. There probably have been other lines in religio-magical evolution. The one given here, though, is at least possible.

During the earlier stages of human development, magic has genuine social utility. It supplies the cohesive and disciplinary social forces which in more advanced societies are furnished by

national anthems, schools, police, laws, and courts. Only occasionally do a magician's mistaken ideas threaten tribal survival, as when the Uwet of West Africa virtually exterminated themselves by poison ordeals, and the Balengi of the same region did likewise by executions for witchcraft.

**M**AGICOLOGY, as a science on the borders of social anthropology, psychology, comparative religion, and historical scientism, did not get properly started before Darwin. There were magicological studies before that time, but largely vitiated, except as sources of raw data, by their assumptions. Some of these were that mankind had started with a monotheistic Adam, and that polytheism and magic were the result of degeneration from that state of doctrinal purity. The mythologist Andrew Lang advanced a slightly-Darwinized form of this theory down into the present century, but Lang was an incurable romantic. Monotheists naturally tend to assume that monotheism is a "higher" form of religion than polytheism. But something is to be said for polytheism too: polytheists have seldom waged holy wars, or burned heretics.

With the coming of Darwinism, early anthropologists such as Tylor and Morgan fitted the growth of magic and religion into neat linear evolutionary schemes such as that presented herein: a gross oversimplification, but useful if not taken too seriously. Later students modified the scheme to include the equally valid concepts of diffusion, convergence, and degeneration.

Almost anyone would agree that the consecration of the Batanga fetish was a magical act, but to construct a satisfactory definition of "magic" is not easy. E. B. Tylor and A. Lehmann considered an essential feature of magic to be its false or illusory character. Such a definition gets us in trouble, when we try to fit in the many mistakes and wild-goose chases of authentic science, and the fact that even a magician's the-



ories are seldom completely wrong. Bacteria are not utterly different from the shaman's disease-demons. The astrologers were right in supposing that planets influenced the earth; it was only in the *nature* of the influences (heat, light, gravity) that they were mistaken.

J. G. Frazer tried to restrict "magic" to what we have called "sympathetic magic", that is, excluding sorcery and spiritism. He opined that a pseudo-scientific sympathetic magic came first, but that when men found that it often did not work, they invented spirits who could be expected to behave capriciously. But as the extinct Tasmanians (the most primitive race to survive to modern times), had a well-developed spiritism, and as there are indications of belief in the soul among our paleolithic ancestors, Frazer's pre-spiritistic stage of culture remains purely hypothetical. The generality of magicians make little distinction between spiritistic and non-spiritistic magic. Therefore this definition will hardly do either.

Others have defined magic as individualistic or illegal supernaturalism, as contrasted with communal or legal religion. But again we have trouble with official magic like that of the Batanga doctor, and suppressed religions like early Christianity.

The most satisfactory definition appears to be that magic is the effort to attain desired ends by treating supernatural concepts in accordance with the methods of the mundane arts and sciences (e.g. training a dog, building a house, or catching a burglar): by coercing, manipulating, or destroying, but *not* by worshipping.

**THEN WHERE** does science come in?

First we must distinguish between pure and applied science, or to use simpler terms between science and invention. Today they are closely associated, so that while the garret genius still flourishes, more and more inventions

are made by scientists and engineers in the pay of corporations.

However, the farther back we go the more distinct they become. Science becomes more and more a matter for philosophers and priests, and inventions are increasingly produced by anonymous common men. Hence we have a lot of information on Hellenic and medieval scientists, but we do not even know the names of the authors of such vital inventions as the clock and the rudder, though they lived within the last thousand years. Archimedes, a great Hellenistic scientist who was also an inventor, apologized for his inventions as beneath the dignity of a philosopher.

This split between science and invention was probably the main reason why the Age of Science did not start in 300 B. C. The Hellenistic scientists went as far as they could with their unaided eyes and hands. Then, lacking telescopes, microscopes, and stop-watches, and not being inclined to invent them themselves, they got stuck.

There has been a battle on the fringes of anthropology during the last 30 years on the question of diffusion versus independent invention. A school of extreme diffusionists (led by the British anatomist G. Elliot Smith), have tried to derive all the basic technics of civilization, including those of the Mayas and Incas, from one or a few centers in the Old World. I call them "extreme diffusionists" because it is generally admitted that a vast amount of diffusion has occurred. Nobody claims that all the people who use matches and guns today invented them independently.

Smith himself derived all the inventions from Egypt, though now Iraq seems to be winning the race to be recognized as the home of the oldest civilization. Smith is vague as to what caused the Egyptians to burst into such an inventive frenzy as to discover not only their own technics but everybody else's too.

In its most acute form, extreme diffusionism results in occult theories about Lost Atlantis and visitors from Venus. Such theories show a curious prejudice against the idea that inventiveness is a widespread human attribute. This prejudice has more in common with culture-hero myths about Osiris and other demigods, who taught men to practice agriculture and govern themselves, than it has with science. Even if all the other civilizations were derived from Egypt, the rise of the Egyptians from savagery still has to be accounted for.

Much is made by extreme diffusionists of the static nature of primitive society and of the known cases of primitives losing some of the arts they had, as the Easter Islanders lost the art of boat-building because the island to which they had paddled had no trees. Lord Raglan argues that savages cannot invent because there are no scholars and scientists among them—though as we have seen scholars and scientists are not required for inventions. He puts the ultra-diffusionist case tartly: "We are often told that the Bongabonga have discovered the art of smelting iron, or that the Wagawagga have invented an ingenious fish-trap, but nobody claims to have seen them doing it."

The matter with this statement is that we do not expect primitives to make inventions very often, and primitives have not been under observation by anthropologists very long, and, finally, it is not wholly true. The ghost-dance religion, launched by the Paiute Indian Wovoka in 1889, was an invention of sorts. About 1900 a Gilbert Islander living in the Marquesas Islands invented a detachable outrigger to keep people from stealing his canoe. King Njoya of Foubam, Kamerun, invented a system of writing about the same time; he may have gotten the general idea of writing from foreigners, but he did not adopt a foreign alphabet. He contrived a system that was ideo-

graphic, like Chinese. The Mayan calendar is almost certainly independent of Old World calendry, being based on a year of eighteen 20-day months instead of twelve 30-day months.

Hence it seems that primitives *do* make inventions, though rarely and under handicaps. Hence the Mayas could have evolved their own culture, and indications are that they did.

However, while any inventive person may make an invention of a practical sort, the pure sciences among early and primitive peoples are largely a sacerdotal matter. In early Rome and Egypt, for instance, calendry was a priestly magical secret, because in that way the public had to come around to the priests each year to learn when to begin plowing and when to hold celebrations.

**IT IS EVIDENT** that these priest-scientists did not get very far in science beyond simple measuring and timekeeping, and that their science was thoroughly magical in its methods of thought. What are these magical methods of thought?

To begin, magic reasons by analogy. It assumes that if a relation holds good in one category of facts, it will hold equally good in the next. As the astrologers put it, "As above, so below." Analogical reasoning leads to such magical acts as *envoûtement*—pricking, roasting, or otherwise maltreating an image of a person in the belief that you thereby injure him. Sometimes analogies hold and sometimes they do not. There really is no natural "law of macrocosm and microcosm", on which magicians have based such wonderful astrological, alchemical, and pseudo-medical theories.

Magic confuses an association of ideas with a casual connection in the objective world. A simple example is the astrological association of the planet Mars with strife. To the Babylonian astronomers the red star suggested

blood, which suggested war, which suggested Nergal the war-god. So the planet was named "Nergal" and acquired an undeserved reputation for fomenting discord.

Magic relies on *post hoc* reasoning: A preceded B, therefore A caused B. For instance, a few centuries back some sailors had a narrow escape from being swamped in a storm. Afterwards they tried to figure out what they could have done to cause the storm. They remembered that they had been having a bull-session about their love-lives ashore, concluded that this was the cause, and swore off bragging about their amours.

Magic generalizes from a single instance. Thus, shortly after the Yakuts saw their first camel, they had a smallpox epidemic, and rashly concluded that camels cause smallpox.

Magic is authoritarian, and the older the authority the more weight he has. When an ordinary writer is dishonest, he puts his own name on others' ideas. When an occult writer is dishonest, his dishonesty more often takes the form of publishing his own ideas but claiming that he copied them from a manuscript written by Hermes Trismegistus ten thousand years ago.

**DO** THESE reasoning processes indicate, as is sometimes said, that savages are persons of inferior cerebral development, or at best are a lot of irrational and credulous blockheads? Not a bit; all of us use just these methods of thought all the time in everyday life.

For example, if you eat a strange berry in the woods, and get a belly-ache, you infer that berries of that kind disagree with you. That's not scientific: it is post-hoc reasoning and generalizing from *one* case. For a proper experiment you would have to eat scores of berries of various kinds (if you survived) and get a hundred others to do likewise. When you want to know a recondite fact, you look it up

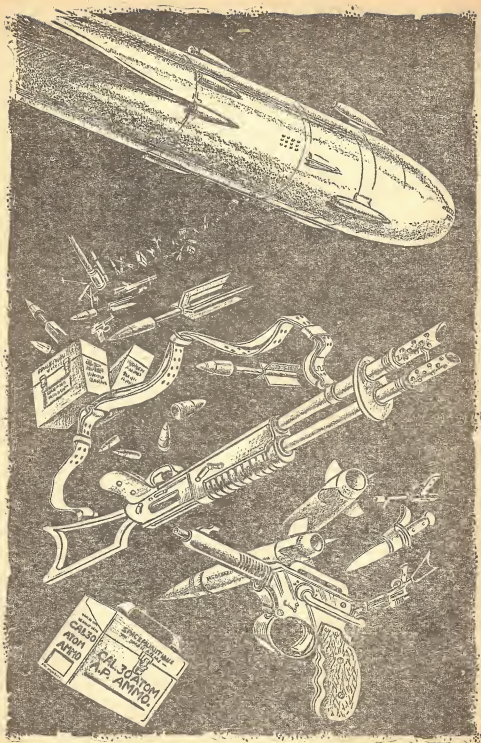
in the encyclopedia, though that is appealing to an authority who may be wrong, and occasionally is. When your first washing-machine, after six months' service, begins to emit strange grinding noises, you infer that something is wrong with it, though that is reasoning by the analogy of machines of other kinds.

Evidently these methods of reasoning are not only in universal use, but also work fairly well—at least most of the time. The trouble arises when men try to solve the secrets of nature by these processes. To discover natural laws, a method that works most of the time is not good enough; we need one that works all the time. Otherwise the thinker will sooner or later err, and without scientific criticism the error will beget others until the thinker is hopelessly off the track.

To meet this need, the scientific method has been developed. This is a formidable discipline which only a handful of men, relatively speaking, have ever mastered. It calls for generalization from a large number of instances, and every generalization must be tested by further observation or experiment. Authorities are not merely quoted, but are weighed and checked, and are never considered infallible. One scientist's statement is not final; it must be confirmed by independent observation of others.

The logic of science is not mere analogy and association, but strict induction, deduction, and statistical methods, whose assumptions are subject to challenge at any time. Assertions must be made in such a form that they can be checked. If I say that a Babylonian inscription had been found in Kansas, I should give the present location thereof so that the reader can go see it. If I claim to have discovered a snake-oil that turns cornflakes to gold, I must give such particulars as to enable any intelligent person to perform the experiment.

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Space cafard had a formula: monotony, times boredom, times confined space times time! After twelve months aspace, one man would crack — and the madness would spread like uncontrolled plague. And this expedition was on a two-year mission!

# DESPERATE REMEDY

Novelet of Souls' Aspace

by Mack Reynolds

illustrated by Wilbur Luton

FIRST OFFICER Johnny Norsen, his lanky body sprawled awkwardly in the acceleration chair in the wardroom of the *New Taos*, grunted his disgust. "Listen," he said; "listen to this. One of these ancient books of the Doc's. It says nothing is more interesting and broadening than travel. Says no one's education is complete without travel."

Dick Roland, ship's navigator, didn't look up from his game of solitaire. He said, "Maybe that's the way it was in the old days when they traveled in chariots—or whatever it was they used in those days. What *did* they travel in back in ancient times?"

The third occupant of the tiny wardroom, chubby Ensign Mart Bakr who had vacantly been contemplating the overhead stirred in his chair and said listlessly, "It's all according to what period your talking about. Back in United States days they went overland in hot rods—vehicles propelled by in-

ternal combustion engines. Had simple aircraft for longer trips. Or did they come later?"

"Anyway," Dick Roland insisted, "possibly traveling was more interesting in those days. More broadening, like Johnny's book says."

Johnny Norsen threw the book to the table emphasizing his disgust. "Naw," he said. "Listen, traveling is never anything but monotony. Reaching your destination might be interesting, but travel itself—I don't care what the medium is—is just plain boredom."

Mart Bakr said, "Sure, and the more advanced it gets, the more boring. Maybe walking has a certain amount of interest, but as soon as you devise a vehicle you get through the country quicker and see it less. Speed it up to the airplane and after a few interesting seconds of takeoff there's nothing at all to do but sit, and the longer the trip lasts the worse it gets. And take us, now. Space travel. Forty-five



men cramped in a little sliver of metal. Are we being broadened? Are we completing our education? Hell no, we're about to go stark raving mad with space cafard."

A voice from the door said, "What's this about cafard?"

Norsen looked up. "Hi, Doc. We were just talking about the boredom of traveling. I think it compounds itself when you don't know where you're going. When's the skipper going to break down? We've been out almost a full year, and nobody knows where we are or where we're going—except him."

Dick Roland said, "Not even me, the ship's navigator. Trip ought to be over by now. Never heard of any crew being asked to stay out more than one year. Not even on bigger ships than this."

"As a matter of fact," Doctor Thorndon said, "it was at my suggestion that the ship's destination be kept secret." The doctor was a small, easy going, roly-poly man, his cheeks still pink but his hair thinning and graying. He looked about forty-five—old for space service—and was the most popular man aboard.

All eyes were on him in surprise.

"Well...why, Doc?"

"The Captain will be in shortly. He told me, just now, to round you all up; he's going to give us the word on the significance of this expedition."

"About time," Norsen grumbled. "We've seen all the film, read all the books six times over, played all the games until we can't stand the sight of them." He paused and grinned at his shipmates. "Nor of each other, for that matter."

"You ain't just a whistlin' *Terra Forever*," Bakr agreed. "I'm sure glad this trip is about over; another few weeks and we'd all be down with cafard."

COMMANDER Mike Gurloff entered the wardroom in time to hear the last of the third officer's words. He scowled down at Bakr, then looked

around at the rest of them. "Keep your seats, gentlemen," he growled. Then to the pudgy Mart Bakr, "The trip is only half completed, Mr. Bakr."

They stared at him in disbelief. Johnny Norsen was on his feet, incredulous. "Half through! Listen, skipper, you're kidding; no ship in the service has ever been out for longer than a year. It... Why, hell, skipper, no crew could take it."

Mike Gurloff ran a weary hand back over his shaven head and sank into an acceleration chair himself. "That's why the *New Taos* was chosen, gentlemen. The moral of the story is never to become the pride of the fleet—the one ship that always comes through on a tough assignment."

"Tough assignment?" Dick Roland blurted bitterly. "Suicide assignment is more like it."

Johnny Norsen, still on his feet, demanded, "What's this about the Doc, here, advising you not to tell us our destination?"

Thorndon said easily, "We knew the expedition would take just short of two years. I was afraid if it became known throughout the crew that they were scheduled for that long a period in space the predilection to space cafard would increase. As it is, most are of the opinion that the whole thing has been very mysterious, but that we are now nearly home; thus far, there have been no signs of cafard whatsoever."

Mart Bakr stuttered indignantly, "Sure, fine. But what's going to happen now, when they do find out?"

The doctor rubbed the tip of his nose and screwed up his cherubic face. "We'll see," he said. "The danger of cafard is always less on the way back; every day that passes brings us that much the nearer home."

Dick Roland, still bitter, said, "Yeah. But it's one thing when it's three or four months; we're a whole year out." His saying it brought the significance of his statement home to the navigator. "Where are we?"

Commander Mike Gurloff had been following the conversation, noting the reactions of his officers, in silence. Now he said, "Yes, gentlemen, we come to the *raison d'être* of the whole thing."

They became quiet, looked at him.

He said, "Gentlemen, just before this trip came up, for what were we scheduled?"

Johnny Norsen replied. "The expedition against those Deneb rebels." His usually-boyish face hardened. "That expedition I would have enjoyed."

Mike Gurloff nodded. "We all would have. How the religio-political movement that has swept the Deneb planets ever got started in this age is a mystery; but there it is."

Dick Roland slapped a palm on the wardroom table. "And there it should have been squelched, immediately, before it spread any further. Now the threat of losing everything the race has accomplished in millenia. A return to industrial feudalism, wars, race and religious hatreds, class divisions, an economy of want depressions and unemployment. That's where *we* belong—with the rest of the fleet, suppressing the Deneb rebellion."

Mike Gurloff said, "The rest of the fleet isn't suppressing the Deneb rebels, Mr. Roland."

Another bombshell. They gaped at him.

"The rest of the fleet is awaiting our return."

"All right," Johnny Norsen said finally. "Why?"

Mike Gurloff said, "Because, gentlemen, on the results of this expedition the Solar System High Command will determine whether or not to recognize the new Denebian government and come to peace with the rebels."

THEY HAD been struck with too many bombshells to be further shocked. They sat numbly, waiting for him to explain.

"Gentlemen," Gurloff went on, "there is only one thing that could



move our government to such a step, recognizing the rebels. Only one thing."

"Nothing!" Mart Bakr blurted, clenching a chubby fist emphatically.

"One thing," Mike Gurloff insisted. "The Denebians are human. They are colonists from the solar system, whose inhabitants in turn all stemmed in antiquity from Terra. All intelligent life, in our galaxy, is originally native to Earth; we've sent our colonists to a thousand other stars which boasted planets suitable for man-life. Deneb is just one of them—one that went sour; one that needs correction before the souring spreads."

Their expressions tightened, but they didn't interrupt.

"Gentlemen, there is only one thing that *must* unite all humans, regardless of internal difficulties."

"Aliens," Dick Roland said. "Intelligent alien life!"

The commander nodded, seriously. "In all our history, man has never found an intelligent life-form with which he could deal peacefully. The answer, I suppose, is obvious. Any intelligent life-form will eventually dominate the universe—that is, if it has no opposition. And the opposition can only be another intelligent life form."

"Like the Kradens," the Doctor murmured.

"Like the Kradens," Gurloff agreed. "We fought them only after decades of trying to meet them on a peaceful level; but they knew from the beginning what we learned only through our experience with them. The instinct of all life is to perpetuate itself, to increase itself. The instinct is so fundamental that it is impossible to rise above it. Any other intelligent life-form

stands in the way of our journey to domination of the universe. It is a potential enemy—and a potential enemy, gentlemen, is an enemy in fact.”

“This is elementary, Skipper,” Norsen told him; “you realize what we want to know.”

“Very well. Shortly before the Solar System fleet was to blast off for Deneb to suppress the revolt there, our posts on the outer-most inhabitable planets in our galactic system, recorded an immense explosion in deep space. An explosion, gentlemen, that could only have been set off by an intelligent life-form, and one that indicated a knowledge of neo-nuclear fission.”

“That eliminates the Kradens,” Doc Thorndon pointed out; “their science hasn’t progressed that far.”

“Well, what kind of an explosion? You mean right out in inter-galactical space?” Norsen queried. “I don’t quite get it.”

Mike Gurloff shook his massive head. “We don’t know; we don’t know the reason, or anything else. All we know is that some intelligent life form set off an explosion of fantastic magnitude. The *New Taos* is now in the vicinity of that explosion’s origin. Upon our reports will depend whether or not the Solar System will recognize the Deneb rebels, so that man can draw close his ranks for a battle with an alien foe.”

It was all out now and they considered it.

Finally Dick Roland said, “You haven’t picked up any evidence as yet?”

Gurloff shook his head. “None.”

“What did they expect us to find?”

Gurloff shrugged burly shoulders. “Don’t know; it’s just a matter of cruising around. Looking for wreckage, perhaps, or an alien ship. If we don’t find anything, we’ll shortly head back.” He came to his feet. “Frankly, I think it’s a wild goose chase, but it wasn’t up to me to decide.”

There was an indistinct babble from

the corridor which grew in magnitude until it reached an echoing roar. They spun and faced the door at the clatter of approaching feet.

A messman, his eyes wide and disbelieving, scurried up and ripped off a fast salute.

“Well, Spillane?” Gurloff growled.

“Captain,” the boy shrilled. “Captain, we found Corcoran, sir. Dead. Down in compartment eight.”

“Dead!” Doc Thorndon snapped. “Why the man wasn’t even ill. I’d examined him less than two hours ago.” He came quickly to his feet.

Spillane collected himself, lowered his voice an octave or so. “Sir, he wasn’t sick. He was killed, sir. A knife sticking in his back. He was murdered, Corcoran was.”

## 2



THEY scrambled down the companionway, unheeding of their supposed dignity of rank; Commander Gurloff and Doctor Thorndon took the lead, followed by the three ship’s officers and with Spillane, still sputtering, bringing up the rear.

“Murder!” Mike Gurloff bit out. “Ridiculous! Hasn’t been a case of murder in the history of the space service.”

They hurried their way down to compartment eight which was crowded with crew-members staring and milling about the crumpled body.

“Mr. Bakr,” the Commander snapped, “clear this compartment of personnel. Doctor?”

The ship’s doctor was already bent over the corpse, his fingers deftly prodding for pulse. He was silent only for a few moments, then he looked up at them. “He’s gone, all right. By the con-

dition of his body, I would say that he's been dead for approximately fifteen minutes, not longer." He indicated the knife still hilt-deep in the victim's back. "Cause of death, obviously."

For a lengthy moment, even Mike Gurloff was speechless. Then he muttered, "Cafard. Only could have been committed by somebody completely mad."

Doc Thorndon came to his feet, eyed his commander thoughtfully. "No, Mike, I stake my reputation as a physician that there is no cafard on this ship—certainly not advanced enough a case to call for this." He indicated the corpse.

Muscles worked in Gurloff's face. "Mr. Roland," he snapped, "bring me an inter-compartmental communication mike."

The ship's navigator drew his fascinated eyes from the deceased, and hurried to a small compartment set into the ship's wall to return immediately with a microphone.

"Here you are, sir."

Mike Gurloff took the device, cleared his throat, and said into the mouthpiece, "Now hear this. Signalmán Corcoran has been found...uh, slain. Anyone—including the man or men responsible—knowing anything of this affair will immediately report to me in compartment eight."

He flicked off the switch and tossed the mike back to Dick Roland.

They stood about indecisively for a period of fifteen minutes or more, ample time for anyone on the ship to have made his way to them.

No one appeared.

"This is incredible," Doc Thorndon protested. "What could anyone expect to achieve by silence?"

"Doctor," Mike Gurloff said, "please take the measures necessary to preserve Signalmán Corcoran's body for decent burial upon our arrival at New Albuquerque." He turned to the others, Norsen, Roland and Bakr. "The rest of you gentlemen come with me to my

quarters and we shall begin arrangements to have each member of the crew subjected to questioning under narco-scop."

AN HOUR later, the crew members began filing into the captain's quarters one by one to be received identically by Gurloff and Thorndon. The doctor quickly injected each with five units of narco-scop, and the commander waited a full minute for it to take effect before asking his questions.

"Did you murder Signalmán Corcoran? Do you know anything which might aid in the apprehension of his killer?"

Spillane: "No, sir," in surprise.

Woodford: "Who, me? No, *sir*," indignantly.

Taylor: "No sir, I been in my bunk for the past six hours, Captain. I didn't even know nothing about it until Ensign Bakr woke me up."

Heming: "I'm a cook, sir; I never been down in number eight since I been on this ship, sir."

Rosen: "No, sir, I didn't," emphatically.

Forty men came and went and with slight variations answered the questions identically. No, they had not murdered Corcoran; no, they knew nothing about his death.

When all had finished, Mike Gurloff looked at the doctor for long moments. He said, finally, "Any chance that the stuff isn't working?"

Doc Thorndon shook his head. "Narco-scop is the most efficient truth serum of all time. There has never been a case in medical history where a person under its influence was capable of telling an untruth."

The skipper motioned with his head at the container from which the doctor had been filling his hypodermic needle. "It could have been tampered with."

"No, Mike." The doctor was emphatic. "It was sealed; you just saw me open it. And, besides, it was locked in my medical chest. I'd take my oath



that it couldn't have been tampered with."

Mike Gurloff slumped back into his swivel chair and stared at the other. Meanwhile, his three officers, finished with their tasks of rounding up the men and ushering them periodically into the room, gathered at the doorway.

Gurloff finally said, "Did I understand you to say that Corcoran had been dead for approximately fifteen minutes when we arrived?"

Doc Thorndon nodded. His kindly face was expressing as much disbelief as was his commander's.

"Then," Mike Gurloff pointed out needlessly, "it would have been impossible for one of us five to have done it. For at least twenty minutes preceding the discovery of the body we were all together in the wardroom. How *sure* are you of that fifteen minute period?"

The doctor frowned back at him. "Pretty sure, Mike. In fact, I went over the body more thoroughly after you had left. I am quite certain that the death took place approximately fifteen minutes before the time I made my first examination. Most certainly not more than twenty minutes.

The skipper banged a beefy fist down on his desk. "Mr. Norsen," he snapped, "take three men, armed with stun-guns, and make a thorough search of the ship!"

"Yes, sir." The lanky first officer spun about and hurried away.

"Captain," Dick Roland protested. "There can't be anybody hiding away on this ship; we've been in space for almost a full year. Where would he hide? How would he eat?"

"Mr. Roland," the Captain growled at him, "have you any alternative sug-

gestions? We have just seen that it couldn't have been any member of the crew, and we know it wasn't one of ourselves. Do you suggest that Corcoran committed suicide?"

The doctor shook his head emphatically. "Impossible. No one—not even an accomplished contortionist—could have placed that knife at exactly that angle in his own back." He added wryly, "And Corcoran was not double-jointed."

**C**OMMANDER Mike Gurloff was winding up an address to the ship's crew. He had chosen the officer's wardroom and was speaking into an inter-compartmental communications mike which sat on the table before him. Dick Roland and Doctor Thorndon were present.

"To sum it up, then: we have been sent on one of the most important and most difficult scouting expeditions in the history of the space-service, and thus far we have handled it with success. Never before has the service asked of a ship and crew that it spend a period of more than twelve Terran months in space. This has been asked of the *New Taos*, and, I repeat, thus far we are succeeding.

"We have reached our destination, made our examination, and find nothing to indicate the presence of alien life-forms. We have now begun our return and upon arrival at New Albuquerque will be able to give the reassuring word which will free the High Command of indecision, and send the fleet on its way to the destruction of the Deneb Rebels and their fanatical regime."

"Good," Dick Roland said softly.

"There is one more matter," Mike Gurloff went on. "When it was first decided to send the *New Taos* upon this expedition, it was realized that only the most experienced and the most balanced of personnel could possibly be used. No one ever touched with caffeine, no matter how slightly, could be



considered; no man whose health was not at the peak. It was for this reason that some half of the original crew of the *New Taos* was replaced from other elements in the fleet.

"Of these new men, Signalman Franz Corcoran has come to a tragic end, as you all know. In spite of our attempts to find his brutal murderer, we have as yet met with no success. A complete search of the ship reveals no stowaways; a questioning of the crew under the influence of narco-scop brought forth no knowledge of the affair.

"We have not solved this crime. But I pledge this: we shall solve it and that as soon as humanly possible. Lieutenant Norsen has been placed in charge of the investigation. I suggest that each of us rack his brain for information about Signalman Corcoran that might give us a clue to his murderer and bring him to justice.

"That is all."

**M**IKE GURLOFF threw the switch on the mike and pushed the instrument away from him. He looked up at the ship's doctor. "What do you think, Doc?"

Doctor Thorndon pursed his lips. "You mean about our chances of getting back? You want it straight?"

"Don't pull your punches with me, Doc; I'm the skipper, you know."

The ship's doctor rubbed the end of his nose with a thoughtful forefinger. "They aren't any too good, Mike. The crew is in fine shape right now; the excitement of the past few days has swept away any cafard-indications that I'd noted. The revelation of the purpose of the cruise; the inability to locate any signs of aliens; the fact that we've turned and are heading home; above all, the murder and its investigation—all have had an invigorating effect." He shrugged slightly before going on. "But a week from now, these diversions will be forgotten and we'll be face to face with the realization of almost another year in space."

Dick Roland spoke up bitterly. "Yeah, and this time, because of the longer trip we had a smaller than usual weight-allowance for books and films and games. Every time-killing activity we have has become so stale with use that it's almost preferable to sit and stare. I still think the High Command was slipping its clutch when it sent us off on a trip of this duration."

"Somebody had to go," Gurloff growled.

Doc Thorndon said wearily, "We'll see, Mike. But there's never been a case of a ship in space for more than a year without space-cafard setting in. And you know cafard; let one good raving case of it break out and it'll sweep through the ship like fire." He grunted in self-deprecation. "And I'd probably be right in the middle of it, as raving as anybody."

Roland shivered. "Let's talk about something else."

Mike Gurloff looked at him. "How are you making out on that Corcoran assignment I gave you, Mr. Roland?"

The navigator's face was puzzled. "I was going to bring that up, Captain. It seems to me that possibly I ought to spend some more time on it."

Mike Gurloff scowled at his second officer. "What do you mean? It was a simple enough matter. I wanted you to check among the crew, find out who Corcoran's closest friends were, see if you can get anything on his background. Personally, now that I think back, I hardly remember the man. Of course, there's practically no use for a signalman on a scouting expedition in deep space, and I wasn't in contact with him to any degree."

"That's it," Dick Roland told him. "Nobody seems to know much more than that about the man. Captain, he had no friends."

Doc Thorndon was interested. "What do you mean, Dick? How about his bunkmates, his messmates?"

"Sure, he had bunkmates and messmates but none of them were really

friends of his. You know, they didn't know him back on Terra; didn't know his family—if he had one. Nobody had ever been on leave with him; nobody seems to know where he used to live."

Mike Gurloff looked at him strangely, then came to his feet. "Come on, Mr. Roland," he growled. "Let's take another look at the files on Franz Corcoran; we'll see you later, Doc."

The doctor yawned and turned to a shelf of the ever-present onion skinned, paperback novels of the ship's library and selected one he had read no more than five or six times.

THE COMMANDER led the way down the companionway to his nearby combination living quarters and office, Dick Roland following along behind.

He opened a metal file, built compactly into the wall, and thumbed through an index. "Here we are," he grunted, "folder on Franz Corcoran; Signalman Second Class."

He drew it forth and turned to sit in the swivel chair at his desk. "Most of the new crew members, as I recall, came from the *Pendleton*; but one or two, including Corcoran, came from battlewagons. Seems to me I recall that Corcoran was formerly on the *Sarpedon*."

He opened the folder and his back stiffened.

Mike Gurloff turned and faced his second officer. "In checking on Corcoran's background, Mr. Roland, did you come in here and look up his file?"

"Why, no sir; I wouldn't come into your office without permission."

Gurloff opened the file envelope wide for the other's inspection. "It's empty, not a scrap of paper in it."

The navigator was incredulous. "But *why*. What would be the point, Captain? Anybody on board could sneak in here and get into your files; they aren't locked. But *why*. For that matter, you went through those papers shortly after we found Corcoran. There

wasn't much of interest, from what you said afterwards, but you read through them."

Gurloff was scowling his own puzzlement. "Rather hurriedly. But, as you say, there didn't seem to be anything of interest in them. I agree with you; I can't think of any reason for their theft." He grunted his disgust. "I guess it's a matter of using Doc's narco-scop again—and I wonder just how much good that will do."

There was a polite knock at the open door and the two officers turned. Three of the ship's non-coms stood there awkwardly, truculence in their faces.

Gurloff scowled at them. "Well, Brown, Woodford, Levy?"

Woodford was the spokesman. "Sir, we've been elected a delegation from the crew."

"Delegation?"

"Yes, sir. Sir, the crew is just as upset about this killing as you are. We figure that unless the murderer is caught maybe someone else'll get it before we finish the trip. Maybe the killer is off his rocker and might try to blow up the whole ship."

"Get to the point, Woodford," Gurloff growled. "What do you want?"

"Sir, the other day we were all given narco-scop and questioned, and there weren't any results; none at all."

The commander was impatient. "We know that."

"Yes, but sir, only the men were given narco-scop; you four officers and Doctor Thorndon weren't."

Mike Gurloff's face hardened. "Are you suggesting . . . ?"

Chief Gunner Brown spoke up. "Yes, sir, we are, sir. If it wasn't one of the men, it has to have been one of the officers. It's too important, Captain to let go by; all our lives are in danger."

Dick Roland said, "Men, it couldn't have been one of us; we were all five in conference at the time of Corcoran's death."

"How do we know?" Woodford said stubbornly.

The navigator explained. "Doctor Thorndon says that Corcoran's death took place about fifteen minutes before his body was discovered; for more than twenty minutes before that we all five were in the officer's wardroom."

"Listen, sir," Brown said, "that's what the Doc says. Sure, I'm as fond of the Doc as the next guy; he's pulled us out of plenty of spots. But it's just as easy for him to crack as anybody else. How do *we* know that Corcoran was dead only fifteen minutes before his body was found? Sir, the ship's crew respectfully petitions the Captain under Article 16G of Space Service Articles, to treat every ship's officer with narco-scope, and question them on the death of Signalman Corcoran."

There was a wry chuckle behind them and Doc Thorndon wedged his way into the small office.

"They're right, you know, Mike," he said. "It's unfair to the crew not to take the stuff ourselves."

3



HE delegation from the crew, grim faced, watched in the tiny ship's hospital as Doc Thorndon loaded his hypodermic and one by one, injected the Captain and his three officers.

"Commander Gurloff, did you kill Franz Corcoran, or do you have any information which would lead to the apprehension of the killer?"

"Absolutely not."

"Lieutenant Norsen...?"

"No."

"Lieutenant Roland...?"

"No, to both questions."

"Ensign Bakr...?"

The chubby third officer shook his head emphatically. "Not me."

"Now you, Doc," Woodford said, his face worried.

The ship's doctor handed the hypodermic needle to his captain and bared his arm. "You want to do this, Mike?"

Mike Gurloff made the injection and stood back for a moment for the narco-scope to take effect. Then, "Doctor Thorndon—did you kill Franz Corcoran or do you have any information which would lead to the apprehension of the killer?"

"No," the doctor said readily. "No, I did not; and no, I have not."

Chief Gunner Brown's sigh came from deep within him. "Then that's that," he breathed.

"Return to your posts, men," Gurloff growled, again the commander.

"Yes, sir." The three crew members turned and left.

Mike Gurloff looked at his officers. "You too, gentlemen. This, of course, changes nothing; we already knew that it was impossible for one of us to be the culprit."

"Just a minute," Mart Bakr said. "I've got something, sir."

All eyes went to him.

He held up a small object, a spindle-like device that would have weighed no more than two or three ounces.

"What is it?" Johnny Norsen asked him. "Where'd you get it?"

Mike Gurloff's eyes narrowed. "Where *did* you get it, Mr. Bakr? It looks like one of those experimental, ultra-miniature neo-fission bombs."

"Yes, sir. I think that's what it is." The third officer made no attempt to conceal his excitement. "Sir, I found it hidden in the mattress in Corcoran's bunk."

"In his mattress!" Roland blurted. "Lord, whoever did him in couldn't have been planning to do it with a thing like that. Why, it'd blow up this ship and half of this part of space."

"Just a moment, let me think." Mike Gurloff's eyes went flat. He said slowly, "Yes, there *is* somebody that'd pull



a stunt like that—a Denebian spy.”

“And kill himself at the same time?” Norsen protested.

Commander Mike Gurloff took him in, nodded his head affirmatively. “Those Rebels are fanatical, Mr. Norsen. They’re as bad or worse as the old Nazis or Stalinists back in primitive times.”

HE CAME to his feet, began pacing up and down the ship’s hospital to the extent the tiny room allowed. “How about this? The Denebians learn about the explosion in space and smuggle one of their crackpots aboard. He has orders to blow up the *New Taos*. Okay, he loses his guts and doesn’t do it but somehow Franz Corcoran finds out about it; so he kills Corcoran.”

“Why would the Denebians want to blow up the *New Taos* rather than any other ship in the fleet?” Mart Bakr said.

“That’s obvious,” his commander growled. “If the *New Taos* explodes out here, rather than returning, the Solar System High Command will think it an act of hostile aliens and make peace with the Deneb rebels.”

“How did this spy of yours get around the narco-scope?” Doc Thorndon asked quietly.

“I don’t know.”

“Listen, I just thought of something,” Dick Roland broke in. “Possi-

bly Franz Corcoran was tailing this spy; possibly Corcoran was a member of the Solar System Bureau of Investigation. An S.S.B.I. man.”

“Could be,” Norsen said. “Anyway, if you’re right, skipper, we have a spy aboard. A spy that was sent to blow up the ship but has—temporarily, at least—lost his guts.”

Mart Baker whistled through his teeth. “Temporarily is right. If the reb gets just a touch of caferd it’ll probably depress him to the point where he’ll go ahead and end it all. And us with him.”

They stood about silently for a time, thinking it over.

Gurloff growled finally, “We have no way of telling who this Denebian might be.”

“Well, at least he’s not one of our old crew,” Roland said. “We’ve been together for years; we know each man like we know the members of our own families. That narrows it down to the new men.”

“Wrong,” Gurloff bit out. “Seemingly nobody is immune to the religious-political madness that has sprung out of Deneb; they’re acquiring converts all over the inhabited systems. I make no attempt to explain it, but the fanaticism is spreading everywhere.” His eyes went over them. “I’ve known all of you gentlemen for more than five years, but I would take no bets that one of you hasn’t succumbed.”

Doc Thorndon nodded. “The skipper is right. The thing is like a virus. Unbelievable. Any one of us might have become a convert.”

Gurloff turned to his first officer. “Mr. Norsen, I want you to go through this ship with a fine toothed comb. I want every explosive aboard jettisoned. Empty the tractorpedos; flush overboard every spacerifle shell.”

“How about handguns, sir?” Norsen asked.

“Overboard with them—any weapon we have is capable of melting a hole in our hull.” He paused. “And, Mr,

Bakr, give instructions to the crew that all watches are to be stood in duplicate. No man is to be alone on the bridge, in the engineroom, or even in the galley."

"But, sir—we don't have the manpower for a step like that."

"Lengthen the watch hours, Mr. Bakr, and *make* more manpower available. Signalmen and gunners are worthless to us now; put them to work standing watch on bridge or in the engineroom. Switch the messmen over. We can make our own beds, serve ourselves."

Norsen and Bakr saluted and were off.

"I guess I'll have to address the crew on this," Gurloff growled. "I'm beginning to feel like a politician with all my talking."

Doc Thorndon pursed his lips. "Good idea, though, Mike; makes them feel like they're part of the team." He got up to leave. "Well, I guess I won't be worrying about cafard for a week or so. This'll stir up excitement enough to last them for awhile."

IT WAS A month later that Lieutenant Johnny Norsen, sprawled in his usual ungainly manner in the wardroom and ignoring in boredom the three dimensional film being thrown in a wardroom corner—a film he had seen a hundred times over—blinked his protest as someone flicked on the lights.

"Hey, I'm watching a show," he protested, then recognized the other. "Oh, it's you, skipper."

Mike Gurloff snapped a switch to kill the projector. "You weren't looking at the thing anyway."

"I guess I wasn't at that, skipper. I've just been wondering what there was about some of these films when we first got them aboard that was so funny, or heartrending, or interesting, or whatever we thought they were at the time."

He indicated the one he had just been viewing. "If I ever see that

comedian in person, when we get back to Terra, I'll strangle him with my own hands."

Mike Gurloff managed to get off a sour grin. "You'll have to stand in line, Mr. Norsen; every member of the crew feels the same way." He sank into an acceleration chair opposite his first officer. "Anything new in the investigation?"

Johnny Norsen shook his head. "Men are beginning to grumble about this watch in duplicate thing."

"They are, eh? Let them grumble."

"They've split themselves up into two factions; that's beginning to cause friction."

"Two factions?"

"Ummm. Divided almost equally, about twenty men to the faction. The original *New Taos* crew men say that they knew each other so well, that they're positive the killer couldn't be one of them; consequently, it must be one of the new men. The fellows from the *Pendleton* and the other ships claim that before they got assigned to this job they went through a security check so strict that any Denebian, or any crackpot, would have been weeded out. They figure it must be a crew member or officer of the original ship's complement."

Mike Gurloff growled, "Both factions just loaded with good sense, eh? What do they do about it?"

"They just watch each other, so far. I think they've elected committees and each faction member reports daily to his committee. I don't know what they expect to accomplish." Norsen yawned deeply. "Think we should put an end to it, skipper?"

The ship's commander had lowered himself wearily into a chair. "Put an end to it? No! Gives them something to be worked up about, excited about. I don't care if they break out into open fist fights—there's nothing else left on board for them to fight with—just so it doesn't hinder the efficient operation of the ship." He ended bitterly,



"As a matter of fact, another murder just about now would be just what the doctor ordered."

Johnny Norsen sat upright in his chair. "What!"

The captain waved a hand negatively, impatiently. "Exaggerating, of course, but the theory is correct." He gestured at the film projector. "How'd you like the show you were running off?"

The first officer grunted his disgust. "I put it on and then forgot to look at it."

"Exactly. There isn't a form of entertainment left on the *New Taos* with which we're all not bored stiff. No entertainment, that is, except *Murderer, Murderer, Who'll Catch the Murderer*; it's the only thing that's keeping us all from cafard."

THE OTHER squirmed uncomfortably at the mention of the dread illness. "Do you think we'll make it skipper? Do you think we'll get back to the Solar System before cafard hits?"

Mike Gurloff shook his head. "No, frankly; I didn't when we were sent off on this wild goose chase, and I don't now."

"We've got to get back," Norsen blurted. "We've got to report this alien threat a false alarm so the fleet can take on the Denebians. We've given them too much time to spread, too much time to prepare, as it is."

"I'm no doctor," Mike Gurloff said sourly, "but I have a working knowledge of space cafard; I've seen enough of it. It's nothing more than monotony and boredom and claustrophobia all blended. Combined, they add up to stark raving madness of a type that tends to spread—wildfire fashion. No man cooped up in a spaceship, averaging only a few cubic feet of space he can call his own, can see another driven mad by boredom and confining walls without blowing his own gaskets. If I was a mathematician the formula would

go something like this: monotony *times* boredom *times* confined space *times* time equals cafard. Time has always been the crucial factor and I have never heard of an authority who claimed a man, any man, no matter how balanced, could spend more than twelve months in space without contracting cafard."

There was a knock at the door and the two officers looked up. Four crewmen stood there, sullenness predominating over respect in their facial expressions.

"Another committee," Johnny Norsen sighed.

"What is it, men?" Commander Gurloff growled. "What is it this time? Your committee seems to have grown—four of you now instead of three."

Woodford said, an element of defiance in his voice, "This is really two committees, sir. Levy and me, we represent the original crew members of the *New Taos*. Brown and Harkness represent the newcomers."

"Well, what's the reason for this delegation? I suppose the *New Taos* crewmen want the more recent additions to our happy family jettisoned and vice versa."

Chief Gunner Brown flushed resentfully. "No, sir; we're in agreement on this particular matter."

"Well, what is it man? What is it? I don't have forever."

Johnny Norsen had to chuckle inwardly at that. Maybe the skipper didn't have *quite* forever, but he almost did.

Woodford said, "Sir, a month ago Mr. Norsen came through and gathered up all the explosives aboard and flushed them out into space." He squared his shoulders. "Not that we didn't think it was a good idea, under the circumstances, sir."

"Oh, fine," Gurloff growled.

Woodford went on doggedly. "He flushed out all the spacerifle shells, the tractorpedo warheads, even the small arms. Everything some damn Denebian

spy might be able to use to blow up the ship."

"Get to the point, confound it, Woodford!"

"Sir, he didn't flush overboard *your* sidearms; you four ship's officers still got your guns."

**MIKE GURLOFF** was on his feet, his heavy face flushed with anger. "Do you men mean to say you have the mutinous gall to approach me and demand that I—the commanding officer of this vessel—surrender my sidearms to you?"

Brown said doggedly. "There's been no proof, sir, that the Denebian spy ain't one of the officers. There's been no proof. But even supposin' it ain't, it don't mean that the spy couldn't conk one of the officers over the head and get his gun away from him. Sir, the ship's crew unanimously petitions the Captain, under Article 16G of Space Service Articles, to jettison the four sidearms in the possession of the ship's officers."

The other three nodded their heads definitely.

"It's unanimous, sir," Woodford repeated.

They stood silently for a full five minutes facing each other, glaring.

Suddenly, Mike Gurloff's hands dropped to his belt. "Mr. Norsen," he said harshly, "here is my sidearm. With your own and those of Mr. Bakr and Mr. Roland, flush it overboard."

"Yes, sir," Johnny Norsen said wearily.

There was commotion in the hall, an elbowing and a thrusting aside of the committeemen.

"Probably another delegation," Johnny Norsen grunted.

It was Messman Spillane, as usual, breathless.

"Captain Gurloff!" he shrilled. "It's the Doc... Doc Thorndon, he's been killed too."

They stood, stunned.

Johnny Norsen said, "Here's your

second killing, Skipper—the one you said was just what the doctor ordered."

## 4



**DOC THORNDON**

was sprawled on the floor of the tiny ship's hospital. The room was about the size of a bedroom of a Pullman of the Twentieth Century. It had two bunks, a tiny folding table, a medicine chest built

into the titanium alloy wall, a lavatory. The hospital also doubled as the doctor's quarters; if he had two patients at once he had to leave his place and bunk with the third officer—but that was seldom.

Ensign Mart Bakr, his plump face screwed up as though in effort to prevent tears from flowing, was standing guard at the door. When he saw the ship's commander approaching he stuttered, "I've kept everybody out, sir. I didn't... I didn't know what you might want to do in the way of investigation."

Mike Gurloff brushed his way past his third officer and surveyed the room quickly. The story was obvious. The bottom bunk was rumpled; a pocket-book lay on its back on the floor. Doc Thorndon's body was near the medicine chest, one arm extended as though in last effort to reach the drugs it contained. He had undoubtedly been stretched out on his back in the bunk reading when something warned him of disaster. He tried to get to the medicine chest—and hadn't made it.

Commander Mike Gurloff wasn't a particularly compatible man, but Doc Thorndon had been his closest friend for half a dozen years on the *New Taos*. His face entirely expressionless, he sank to his knees beside the other.

"Who discovered him?" he asked.

"I did," Mart Bakr said. "Spillane and I were coming along the corridor. The door was opened and I glanced in; there he was. I rushed Spillane to get you."

Mike Gurloff scowled and reached for the doctor's pulse. "You didn't check the body...? ...*He's not dead!*"

"What!" Bakr blinked. "But..."

"Here dammit, help me get him onto the bunk. What's that on the floor?" They struggled to get the roly-poly doctor's form stretched out on his bunk.

"What's what on the floor, sir?" Bakr puffed.

"He's scribbled something on the floor with his stylus. Damn it, can you see it? I can't make it out."

Dick Roland had entered behind them, took in the situation at a glance, got down on his hands and knees beside his commander. "It's the name of some drug," he said. "He's written out the name of some drug. It's *unidote*." He looked up at the other two. "What's going on. What's wrong with Doc?"

Bakr said, "We found him on the floor here; thought he was dead. I guess he must've written that before he passed out."

"He's hardly breathing," Gurloff snapped. "Where is the key for that medical chest? He's been poisoned."

Mart Bakr, perspiration running down his chubby face, was fumbling through the stricken doctor's pockets. "Here they are."

**I**N MOMENTS they had the chest open and were searching through the multitude of drugs.

"Here it is," Roland blurted. "*Unidote*. There's no directions on it. Let's see. No, here it is. Just one capsule with water."

"All right," Gurloff barked, "get it into him. Bakr, hand me that medical guide there." He began leafing rapidly through the thin pages while Roland lifted the unconscious doctor's head under one arm and forced the pill be-

tween his lips. Bakr hustled over with a water carafe.

"Not that water," Roland told him. "Go get some from the wardroom; maybe the poison, whatever it was, is in that carafe."

The water was quickly forthcoming and the pill washed down through reluctant lips. The water dribbled over bunk, patient and first aid administer unheeded.

Gurloff, his eyes on the medical guide, growled, "Here it is. *Unidote*. The stuff's an almost universal antidote for poisons administered through the stomach. If he's been poisoned, it should bring him out of it."

Johnny Norsen, a pack of crew members behind him, was at the door now. "What's going on," he rapped out; "what's the matter with the Doc?"

Mike Gurloff snapped the book closed and faced them, his face granite hard. "Doc Thorndon has just been poisoned. We don't know if he'll come through this or not; he's still alive, and we've got the antidote into him."

The murmur went back through the crew members. "It's the doc; somebody's tried to kill the doc."

Johnny Norsen scowled his incredulity. "But who'd want to kill Doc Thorndon? There's not a man on board who doesn't love old Doc."

Mike Gurloff growled viciously, "All weapons have been flushed overboard, but there is one weapon the spy still has at his disposal—and one that can destroy the ship without his revealing himself. Space caford. With Doc Thorndon dead, caford would soon hit the ship and we'd have a crew of raging maniacs."

He took in his three officers. "My orders regarding watches is duplicate will continue in force. In addition, gentlemen, will be this: no man of this ship's complement will ever be alone until completion of the cruise. Each man will be assigned a companion from whom he shall never be separated. Under no circumstances shall any crew-

man or officer ever be out of the sight of his companion. As soon as such a separation does take place, if it does, the companion will immediately report to me.

"Do you understand, gentlemen? From this day, no man in this crew is ever to be alone. Mr. Norsen, you will never be out of the sight of Mr. Roland, and vice versa. Mr. Bakr, you will never be out of sight of Chief Gunner Brown; make arrangements for him to bunk with you. Divide the rest of the crew likewise, each man to have a companion."

From the corridor someone said softly, "It's a good idea, but how about you, Captain?"

Gurloff's face hardened but he snapped back, "The point is well taken; as soon as Doc Thorndon has recovered he and I will be a pair, always within sight of each other."

ON THE bunk behind him, the doctor stirred and they spun to face him. He shifted in his bed, shook his head weakly. "*Unidote*," he mumbled. "Been poisoned. *Unidote*."

Mike Gurloff was at his side.

"Doc," he said. "Doc, are you all right?"

The doctor's eyes opened. "Mike," he said weakly. "Poison. Didn't even think about it. Check all water aboard. All food; my medicine chest. Throw overboard all bottles with red labels." His eyes closed again.

"What's the matter?" Dick Roland demanded.

"Nothing. Nothing's the matter, he's sleeping. I think he'll be all right." Mike Gurloff got to his feet. "You heard his suggestions, gentlemen. They're good. Begin an immediate check of all food, water, oxygen supplies."

"Yes, sir," Johnny Norsen spun to be off.

"Just a minute, Mr. Norsen," Gurloff growled. "Mr. Roland goes with you. My order is to be obeyed; from



this time onward, no man is to be alone on this ship. Not even for a moment."

Johnny Norsen's angular face was sheepish. "Yes, sir," he said. "Come on Dick."

They left and Mike Gurloff turned to his third officer. "Mr. Bakr, you and your companion, Chief Brown, will begin assigning the crew members their associates. I want you to take particular pains in assigning men to a person they *do not* personally like. I do not want *friends* to be linked as companions. Each newcomer to the crew of the *New Taos* will be assigned to an oldtimer; I want men who will watch each other, understand?"

"Yes, sir!"

"Very well, and as soon as you have completed this measure and impressed its significance on the crew, report to me here. I have a few other measures in mind."

The few other measures included such items as every member of the crew exchanging his clothing and bedding. Mike Gurloff was taking no chances that the spy might be equipped with espionage devices concealed in buttons or textile materials. Nor did any crew member know who was wearing his former garments. All clothing on the ship was gathered, laundered and redistributed under the supervision of the ship's officers.

Nor did Mike Gurloff stop there. The personal belongings of every man aboard were gathered and jettisoned. No secret source of poison or explosives was to be left aboard.

There were no complaints at the measures.

EVERY DAY that passed saw Doc Thorndon visited in the hospital by every member of the crew—coming in pairs, of course, since from that time on no man on the *New Taos* was ever alone. But, in spite of all the attention that could be showered upon him, his recovery seemed slow. He admitted that he didn't know what poison had been used on him, nor how it had been administered. As best he could remember, it was intuition more than anything else which had brought him suddenly from his bunk, and sent him to his medicine chest for antidote.

It was about a week after the poisoning that Commander Mike Gurloff entered the ship's hospital and closed the heavy door behind him.

Doc Thorndon looked up from his book. "Hi, Mike," he said. "You look tired; drag up a bunk and lie down."

The ship's commander hoisted himself into the upper bunk, put his hands under his head and stared up at the overhead above him.

Doc marked his place in the book with a finger and said, "You've got something on your mind, Mike."

Mike Gurloff growled softly. "And it's about time; you see, Thorndon, I've been thinking."

It was the first time in the doctor's memory that the other had addressed him by his last name alone. He closed the book and slipped it beneath his pillow and waited for the other to go on.

Mike Gurloff said, "I kept on thinking until I figured out who killed Franz Corcoran."

"Oh. Who?"

"You did, Thorndon; you're the only man on board who could possibly have killed him."

"Not exactly killed him, Mike. I executed him."

Mike Gurloff stiffened and began to come to one elbow. But then he sank back again.

"How did you find out?" Doc Thorndon asked softly.

"I don't know. It wasn't one thing,

and it didn't come all at once; it was just little things piling up. I couldn't accept it at first, so I kept refusing to realize that you alone could be our killer, our spy. How could you do it, Doc?" For the first time, the captain's voice was bitter.

"It was easy," Doc Thorndon said, still softly. "I'm a physician Mike. It isn't hard for me to cut out a tumor, to amputate a gangrenous limb; nor was it hard for me to execute a Denebian spy."

"What!"

"Of course, Mike. But I'm interested. *How* did you figure it out? I'd rather hoped that nobody would. We still have eight months to go; tell me what you know, and I'll tell you the rest."

"Well, first of all it was you that told us Corcoran had been dead for fifteen minutes. None of the rest of us had the medical background to check on that; it gave you an alibi."

"That's true. Corcoran was dead at least a half hour at the time he was discovered."

MIKE GURLOFF went on. "Second, narco-scop *always* works. It was working when we tried it on the crew. As you pointed out, it couldn't have been tampered with, because its container was sealed. But when we questioned the officers, including yourself, a week later, it was no longer sealed and *had* been tampered with—and you're the only one who could have done it. Actually, we were probably injected with water, or some such, instead of narco-scop."

"That's a good guess," the doctor admitted freely. "I knew it would only be a matter of time before someone insisted that the officers be subjected to narco-scop as well, so I substituted water. What else, Mike?"

"When I thought back about it, you being *poisoned* the way you were seemed doubtful. Your scribbled note





giving the antidote was just too *pat* to be believable."

"I had taken a couple of sleeping pills," Thorndon said, a trace of disappointment in his voice. "I thought I'd put it over fairly well. Of course, if you hadn't found the antidote message I'd scribbled, I would have come out of it in a few hours anyway. I would have still claimed to have been poisoned."

Mike Gurloff's voice had deepened to a harsh growl now. "All right, Thorndon, so you admit it; now explain why."

The doctor rubbed the tip of his nose reflectively. "Well," he said, "it was as I said. Franz Corcoran was a Denebian spy. I believe I told you that I'd examined him a few hours before his death. The examination was a psychological one rather than physical; I was giving him a routine check for cafard. Some of my questions must have inadvertently stepped on his idealogical toes. Before I knew it, I had a wild eyed fanatic on my hands, roaring his accusations against the Solar System League and his boasts of what he was going to do about it."

Mike Gurloff remained silent but his facial expression was changing.

The doctor went on. "You see, Mike, that mysterious explosion out in space wasn't such a mystery, after all. Evidently, the Denebians—in an attempt to gain time and to prevent our fleet from attacking them—sent a robot ship out into intergalactical space with a large neo-fission warhead. It went beyond the point ever reached by a crewed ship, and then automatically exploded.

"But that was only part of their plan. They correctly assumed that a Solar System ship would be sent out to investigate, and made all efforts to smuggle a fanatical spy aboard. The spy's job was to destroy the *New Taos* upon reaching the vicinity of the mysterious explosion—committing suicide himself, of course, when he did it. Very well. Do you realize what that would have meant to our High Command?"

"Ummm," Mike Gurloff growled. "They'd assume we were lost in a fight with hostile aliens, and come to a truce with the Denebian rebels."

"Quite correct; happily, I stumbled upon the spy before he was able to use his explosive."

Mike Gurloff bit out, "Doc, you had no right to take the matter into your hands. Assuming that I accept your story, your duty was still to report to me, to turn Corcoran over to me."

"Oh?" Doc Thorndon said easily. "And just how were we going to get the *New Taos* back to the Solar System, Mike? What was going to keep the crew from cafard during that year period?"

"What' d'ya mean?"

"I mean that the only thing that has kept this crew sane is the interest and stimulation brought on by this mystery. The killing itself; the stolen papers on Corcoran from your files; the arguments between crew members and the various committees they formed; my being poisoned; the orders to jettison everything a spy could use

to destroy the ship; the more recent orders that every watch be stood in duplicate, that no man ever be left alone. All these things, Mike, have kept the ship in a continual dither—and has kept cafard from taking over."

Mike Gurloff snorted his disgust. "You're right, damn it, Doc."

"Of course, I'm right," Doc Thorndon said with satisfaction. "And now that I think about it, I'm glad you found out; now, at least, there'll be two of us."

The captain didn't get that. He peered down over the edge of the bunk at the other, his face scowling. "What do you mean by that?"

The ship's doctor was bland. "When you were assigning everyone on board a constant companion, didn't you team yourself and me? We're the only two aboard who know that I destroyed Corcoran. We'll have to keep the mystery alive, keep things hopping. Good grief, Mike, we've got another eight

months more in space. If cafard is to be staved off we've got to play this game to the hilt."

Mike Gurloff groaned and lay back on the bed again. "For instance, like what?"

There was a shrug in Doc's voice. "Oh, I don't know. Maybe a month or so from now we'll bean you over the head with a wrench or something, and let them find you unconscious somewhere. Then later you can have all the ship's tools except those continually under guard, jettisoned."

Doc Thorndon's voice went thoughtful now. "Maybe later on we can start a fire..."

Commander Mike Gurloff growled disgustedly. "I should have become a salesman like my poor old mother wanted. When I entered the Space Academy I never figured I'd wind up sabotaging my own ship for a period of eight months—in order to get it back home."

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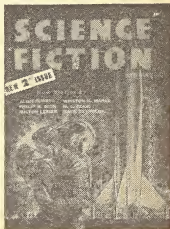
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## SCIENCE FICTION STORIES



(continued from page 8)

sometimes not. Often a person's most potent biases are unconscious.

But stories which appeal to our biases often strike us with an undue feeling of favor. Many people, for example, will admit that some stories which they love and re-read often are really not very good; they just love the stories and don't care whether their favorites are literature or not. (I'm very fond of the Captain Future novels although I know they are mediocre.)

If you could discover what bias is touched off by *the kind of story* which is an editor's favorite, then you could sell him pretty consistently. Also, editors try to discover group biases among their readers, to a certain extent.

The editor is also a reader; he's accessible to being hit on his biases, and if he's hit hard enough he may not be able to resist a given story. If he is a gadgeteer, then he may be so delighted by the gadgets in a given story that he doesn't notice how far the story is below his standards, otherwise. He may accept the story gleefully; write glowing prevue blurbs about it; spread the title over the cover; present it as one of the immortals of science fiction—and then wonder why only a few read-

ers praised it. Those who liked it, of course, had biases like the editor's; the majority may or may not have found the gadgets interesting—but they certainly noticed that the plot was stale, the dialogue juvenile, the characters cardboard, the writing awkward, etc.

If the editor is all hipped up on any particular sociological theories, psychological and/or psychotherapeutic fads, etc., then the same thing is likely to happen in the case of a story containing material that caters to these biases.

Being reasonably human, he also has biases against particular things, too. On the conscious level, he can warn writers that he isn't interested in stories taking place in the Venusian jungles for example. But how can the writer know that the name Algernon reminds this editor of liverwurst; which reminds him of fresh-slaughtered pigs; which reminds him of his moronic second cousin thrice removed who induced him to do something which he's been trying to forget, on various levels of consciousness—and *therefore* any story containing a character named Algernon leaves him with a feeling of slimy disgust and revulsion. Thus, a given story which was really right up

this editor's alley on the objective level, and one of the best stories of the type written in five years, was rejected flat.

Now that is an extreme example, but sometimes personal biases make it impossible for an editor to accept a story, which is later greeted with shouts of joy by another editor.

HERE IS where an editor simply falls over his subconscious, accepting stories which are not "good", rejecting first-class stories. Where an editor is aware of his biases, then one test of his editorial worth lies in his ability to say, "I don't like this story, but it's good, and the kind my readers expect of me," or "I love this one, but my loving it doesn't make it a good story," and to act accordingly.

You might think that I have over-emphasized this bias aspect of the editorial problem and you may be right. I've given this emphasis to it because I want to draw your attention to the fact that this element exists. From what I have seen and heard, it is not often taken into consideration.

Obviously, violent editorial bias is not going to account for a great number of bad selections by any long incumbent editor indefinitely; this would soon result in a change of skippers for the particular magazine. But this element can account for what otherwise seems to be unexplainable lapses of judgement and taste.

So far as an editor's repeated use of stories by writers who happen to be his friends goes, this can be considered as a marginal case of bias—but as a rule it is not undesirable. For every story an editor has taken from a friend, and which readers or other writers thought was not as good as it should be under the circumstances, he has probably rejected two manuscripts which other editors thought better than the stories he printed. In some instances, the other editors were right, and fans started noting, "Hey, Joe Doe's stories in *Flabbergasting Fiction*

are much better than the ones he's been writing for *McPencil*." But you've seen the opposite just as often, where the fans said, "Joe Doe's stuff in *Electrifying Episodes* is pretty sad; *McPencil* knew what he was doing when he wouldn't even run them under a pen-name."

And then, sometimes, a second-rate story by Joe Doe was recognized by the editor for what it was, but accepted strictly from hunger for anything better.

What can be done about the bias situation? An editor can have his biases pointed out to him; and if it turns out that he was completely unaware of them, he may be able to operate a little better once he knows what they are. I say *may* because this problem touches upon others which lie outside of my range of competence; but in some cases, a well-documented word to the wise can help. For example, I've just recently been made aware of my predilections for hyphenating phrases which should not be hyphenated. It's something I'm grappling with and hope to get under control, eventually—but I'd never noticed it had it not been brought to my attention.

So I'd like to suggest that fans who like to do research, and write articles upon their findings for fan magazines, could have themselves an interesting time exploring editorial biases, as evidenced by the published record; and they might accomplish something in the way of helping an editor improve his work.

WHEN IT comes to author-editor relationships, we come into a what amounts to a special field of diplomacy, and the ways in which an editor can hurt himself cannot be enumerated in the compass of a short editorial. The successful editor is the one who manages to operate so as to tread upon the fewest auctorial toes; but no editor can hope to avoid giving offense entirely; he's going to hurt some

[Turn To Page 84]

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## SCIENCE FICTION QUARTERLY

feelings at some times no matter what he does.

Authors, fans, agents, and many editors themselves have often discussed various editorial practices, and one of the 'most controversial has been that of how an editor handles stories which he would like to use—but not in the form submitted—and how he handles manuscripts he has accepted.

In the first instance, there is no hard and fast rule as to how drastically or often any given manuscript should be worked over by an author in order to bring it into line with what a given editor wants. The complaint that, "So-and-so made the author do this story over six times," or "So-and-so wanted revisions, and he killed the story", are very common. By the law of averages, both complaints undoubtedly have been justified at times; by the same law—and particularly in the case of an experienced editor who knows science fiction and knows what he wants—the complaint will not stand up under an unbiased before-and-after examination. (I have heard, for example, that "The Demolished Man", was originally submitted as a short story. Whether or not this is true of the Bester novel, this sort of thing has happened.)

But there is no doubt that where such complaints may be justified, then an editor falls over his own feet in demanding extensive rewrites. And it is very doubtful that—except in special instances—numerous rewrites will improve a story as much as the demanding editor in the case may believe. In any event, however, this case leaves some measure of choice up to the author. Regardless of whether he may choose, under the circumstances, for the sake of a sale—or an appearance in the particular market—to revise his story over and over, he still had the right to say "No".

Where an editor makes alterations  
[Turn To Page 86]

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## SCIENCE FICTION QUARTERLY

on his own discretion, and in so doing changes not merely words and phrases, but violates the basic integrity of a story, then there's sound reason for an author's bitterness. In some cases, he may refuse to deal further with the editor in question—except in cases of financial emergency. This type of obtrusiveness can also bring forth a justified complaint from discerning readers that too many of the stories in the magazine read as if the same person had written them. And what defense is there if the readers' opinion shows that a given story is poor, and it transpires that editorial manipulations were to blame?

Obtrusive editing of this nature is often mistaken by the offender as "creative editing"—an attempt to help the author realize more fully what he has only achieved in part. Anyone can make such an error, with the best intentions, once in awhile; and I know from personal experience, that it sometimes takes an awful lot of will-power to lay that blue pencil down. I, too, get sudden inspirations as to how the story in front of me can be made really terrific, if only...

Here is where true "creative editing" comes in. Sometimes an editor will see implications in a story that the author has not seen; sometimes he will see how additions, deletions, etc., can make a much better story out of it. But the editor should realize that his own vision may not be as clear as he thinks, and realizing this, consult the author first. Was this what you meant on page so-and-so? What about this—had such-and-such possibilities occurred to you? At times, the editor will be right, and an author will be happy and grateful either to make changes himself, or allow the editor to work it over as outlined. But anything more than cursory alterations should not be made without giving the possible victim a chance to say "No!", or

[Turn To Page 88]

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## SCIENCE FICTION QUARTERLY

to explain why he didn't do so-and-so, and possibly convince the editor that the author knew better after all.

When I first read James Blish's "Testament of Andros", I felt that it needed a slight expansion at the end. Jim agreed, and did a few pages over. When I started to work on the manuscript, I saw a few minor details which either puzzled me, or which I suspected were not exactly what he meant. We talked it over, and found that where I was right in one instance—he'd overlooked a minor contradiction—he was saying exactly what he meant in the others; when he explained, I saw that he was right. My "improvements" there, had they been made, would have weakened or diluted what was right just as it stood.

Thus, any editor who constantly obtrudes himself into manuscripts he accepts is asking for trouble—both needless trouble with his writers, and the grief that arises from running poor stories, for which the authors are not to blame.

As with the matter of personal bias, the most that can be done is to point out to the editor what he has been doing, and hope that such knowledge will help him amend his practices. If he can't... that will be part of the answer if he complains about having an awful time getting good stories.

There's a slanderous myth to the effect that editors are frustrated writers, who couldn't write decent (or saleable, or both) stories themselves, and who compensate for their own feelings of inferiority by lousing up their betters. Well, perhaps some such individuals have held editorial posts at times; but a successful magazine, with a contented audience, isn't likely to come from such hands.

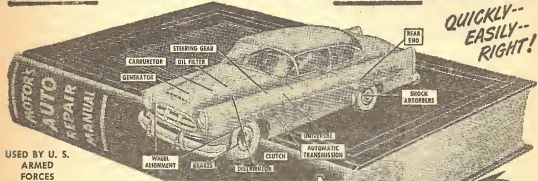
There remains the question of how writers themselves fit in to this picture of why editors have trouble finding good stories, but this will have to hold for the next issue. **RWL**

[Turn To Page 90]



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## Letters

Well, it took a long time for the votes to come in; but they did come in, and there's no doubt that a majority of you want to see the letters contest restored. I'm pleased; the reason I dropped it temporarily was because I felt you didn't really care.

A majority also affirmed that they would rather see a few interesting letters than many of little interest, included sheerly for the sake of having a large number of entries, if the choice had to be made. I shall adhere to this verdict, too.

This is very definitely and distinctly *your* department, and the measure of its success and interest is up to you. At times, there have been very few letters in a given issue; this was because I did not receive any more *before my printers' deadline*. Not that I only received a handful of communications in all—there has been a gratifying volume of response from you all along—but that nearly everyone sent only a coupon, or post card, or capsule comment saying "fine", "good", "not so good", "ugh", and so on.

Perhaps I've unintentionally given you a false impression of what I consider an "interesting letter, worth publishing". It is true that I find a lot of the letters in "Brass Tacks" stimulating, and I like to see that type of discussion. But I also think "The Reader Speaks", "The Ether Vibrates", and "The Vizigraph" are very enjoyable letter departments, too. Ideally, I'd like to see all types in SFQ, not wanting "It Says Here" to be an imitation of any other editor's letter department, but unique in its own right. In actual practice, I'm restricted to what you write. But, as I've said before, please write what you feel like writing and

## IT SAYS HERE

don't worry about this department's "policy".

Now it's your move. RWL.

## DISSENT

by Murray King

Dear Mr. Lowndes:

It isn't so often that I find myself in disagreement with the book reviews of Damon Knight but his comments on "Cloak of Aesir", left me a trifle disappointed. Perhaps it was a case of enthusiasm making him overlook fault, for while I wouldn't contest his judgment about the value of the stories as landmarks in science fiction, it seems to me that he left a lot unsaid.

Without detracting from author Campbell's merits as an idea man, I think a review of this volume should have mentioned that the Don A. Stuart stories were written with something considerably less than smoothness of style, particularly those wherein the author tried to paint a somewhat poetic mood-picture, as in "Twilight".

Re-reading "Twilight", as I did not too long ago, I was immediately impressed with two things—the author's intent and desire to write in a sustained, poetic style and his inability to do so with any degree of consistency. Finely written sentences and passages are there, side by side with awkward, clumsy effects which show nothing more than the desire to write beautiful prose and underline the failure to achieve it.

I wonder if Mr. Knight didn't notice this, or whether he considers the writing effective, throughout. Since there is no discussion of style in the review, I suspect that his customary attention to such matters was distracted by what he found to praise.

Incidentally, unless I have overlooked earlier examples, Mr. Campbell in "The Escape" was the first science fiction writer to use the type of ending made famous by George Orwell in "1984". There's no getting away from the fact that, despite his stylistic failings, Campbell has made worthy contributions to the field, both as author and editor.

—Greenwich, Conn.

My impression was that Knight's entire reason for commending "Cloak of Aesir" was for its historical value in tracing science fiction's development and that in this particular case the trends were more important than the technical execution of any particular story. There are times when the over-

[Turn Page]



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## SCIENCE FICTION QUARTERLY

all import of a story triumphs over incidental crudities.

### PARADOX

by Nan Warner

Dear RWL:

The odd thing about your August issue is that there wasn't a bad story in the issue, and yet only one was what I'd call good science fiction. No sense in blaming Crossen for this because even though he may be one of the chief propagandists in the "take the science out of science fiction" campaign, he wasn't a pioneer in practising it. In fact, the practice has been going on so long that my reaction, when I began to see dissertations along that line was to mutter "What science?"

My way of judging whether a story really belongs in a science fiction magazine is to ponder a while, and try to see if the story could happen just as well in a mundane setting, without any basic changes in the general plot and action.

For example, "The Guthrie Method" by Ray Gallun (in your May issue) was very definitely science fiction; the problem could not be solved on the Earth, and could not be solved at our present stage of technological development. That is, it couldn't happen today, and probably not tomorrow. The exact amount of scientific detail doesn't strike me as so important as does the general feeling. I mean, a lot of science can be there by implication and the reader doesn't have to go through all kinds of treatises, lectures, diagrams, and so on in order to get the impact of science behind the action and plot.

But take the August SFQ. "Polar Punch" was amusing and enjoyable to me, but I'm willing to bet that the story, in its basic essence, could be rewritten and laid in some terrestrial past century. "Earthfall" could easily be made into the story of adventurers coming upon some utopian colony of expatriates. "Rebellion Indicated" is a "white man's burden" story, distorted into other-world setting—something of a satire, and perhaps science fiction if you consider sociology and psychology sciences. But somehow I feel the story could have been written in its essence by someone who had never heard of science fiction, but who was well acquainted with history and political behavior. "Trio" is distinctly a fable in which insects, instead of animals, discourse on the follies of man.

"T. D. P." and "The Seeker of Titan" were both too slight to bother about; neither seemed very fresh, though both were well done for their length, and didn't annoy me. Same with "Five Scotch Story".

Which leaves "The Watchers"—which

[Turn To Page 94]

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had some fascinating projections of possibility, which held up a strange and different world for examination, and yet which had understandable people in it, behaving in a believable way. This and the de Camp article and the departments made me feel that I'd gotten my money's worth.

From what you've said in your editorials and comments, I get the feeling that these stories aren't exactly your idea of science fiction, either. Am I right?

—New Canaan, Conn.

I'm not convinced that "Polar Punch" could be adapted to another, non science fiction setting as easily as you think, but I'll admit that I like the type of story you define as science fiction best.

## RESTRICTED AREA?

by Loring Ware

Dear Mr. Lowndes:

What kind of prima-donnas do you have running the type-setting machines, anyway—or is the letter column only for the type who get kicks out of seeing their lovely names in print? I'm referring to the

double-space, typewritten requirement on publishable letters. In your August issue you mentioned, in regard to the artwork awards, that unless you received at least 50 votes on the question, you would drop the contests.

I could read 50 letters written on brown paper with a 7H pencil stub in one afternoon. For a quarterly magazine, you're awfully worried about 3 extra hours' work for somebody, spread over 3 months. When I write to you, I consider it a letter from person to person, not a precious manuscript. If you see fit to publish it, fine, but I haven't noticed many letters addressed to "The Readers Of Your Magazine".

And another angle on this 50 letter business. I've passed the stage where I thought that science fiction magazines must have nearly the circulation of *Life* or the *Saturday Evening Post*, but—only 50 letters? Something's happened to the people who used to like science fiction. After twelve years, it's still got the hold on me it used to, but I guess I'm alone, with the exception of a handful of B.N.F.'s who seem to be carrying the ball completely alone.

Of course, we're rapidly being turned into a nation of pap-fed illiterates by a few thousand near-morons without the brains to understand what progressive education is, much less put it into practice, as it should be—but my Lord, only 50 letters!

By the way, Willis Freeman gets my vote for the August letter column.

## IT SAYS HERE

Well, Loring, since the customer is always right, then one of us must be awfully confused. Perhaps you read a different edition of the August SFQ than any that I've seen. Because, in all the copies I've looked at, I state the following in my paragraph at the top of the inside column of page 95:

*"We'll restore the original contest for letters if a clear majority of votes are for it, and if I get a minimum of fifty votes on the question."*

I said "VOTES" lad—not letters. *Everyone* who wrote in (whether they sent a letter, coupon, postal card, or hieroglyph-covered brick) DID NOT NECESSARILY VOTE ON THE LETTERS CONTEST. In fact, only a small minority of communications received had shown any interest, either way. Up to that time we had not received anything like the minimum stated (I wouldn't have been unyielding, for example, if 49 had been received) although the total number of communications per issue had not fallen off.

The letter department is for *anyone*—fan, friend, or fiend—who would like to make use of it. Unless a letter-writer says he does *not* want his comments published. I assume that his letter is available for publication, at my discretion. It stands to reason, however, that the majority of *letters* received will be from persons who frankly enjoy seeing their opinions in print who are interested in the editor's comments on these opinions, and who hope to hear from other science fictionists as a result of this publication. When one reader writes to disagree with another reader, or to add to the discussion that makes for more interest in the department. And the department depends entirely upon the readers; it can be as lively as you make it.

In order to prove to the world that I am no prima donna, I am running your letter, but in the future, I must

[Turn Page]

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## SCIENCE FICTION QUARTERLY

insist that you type letters in both upper and lower case—not all caps—if you are interested in having them appear in this department. Believe me, I can, and do read letters written on brown paper with a 7H pencil stub, at times. But you may not realize, Loring, that handling SFQ and *Future Science Fiction* is only a small part of my job; this company issues a number of western and detective magazines, as well as a sports magazine—I handle them, too. Thus, in order to devote as much time as necessary to essentials, I have to draw a line at *un-necessary* work.

It is not the *labor* of typing up letters which were written in hand, but the *time*—I can and do make exceptions now and then when someone who does not have a typewriter available writes me a short and particularly interesting letter. My *orders* (and the editor of a magazine is hired to execute a policy, not to make it) are that handwritten material cannot be sent to the printers. They are not prima donnas either; they, too, have to maintain schedules; they print *many* magazines other than SFQ and *Future Science Fiction*. In order to maintain their schedules, they have to draw the line at manuscripts which would require extra time on the part of the linotypists—who are expected to do their jobs within given schedules.

Finally, while I stated that we receive a healthy number of communications on each issue, the number of *letters* is not anything like it used to be. Back in the days when there were only two or three science fiction magazines, the volume of letters was very high. Now, when the type of reader who is most likely to write letters follows a number of magazines, and likes to write to all of them now and then, the number of letters to any one magazine obviously cannot be as high as in the past.

[Turn To Page 98]

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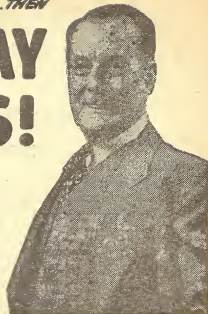
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thought it was quite good. Yet, it received fewer letters than any other issue of any science fiction publication I have ever handled.

## The Elder Profession

(continued from page 61)

This discipline has developed within the last four centuries. Does that mean that no scientific discoveries were made before that?

No, many were; but would-be scientists also discovered many things that were not so. Plato's "Timaeus" is a mine of errors of this sort. With so many guesses, some guessers were bound to hit the right answer. Aristarchos hit on the heliocentric theory, and Demokritos hit on evolution. But the misses far outnumbered the hits, and without the scientific method it was difficult—except in simple matters like the roundness of the earth—to tell who was right.

Among pre-scientific intellectuals like Pliny and Roger Bacon there was often a strong feeling that "science" was real and "magic" illusory. When they tell us what they mean by "science", however, they include a lot that we class as magic. People still try to discover scientific facts by pre-scientific means, and usually end up by chasing such snarks as the prophecies of Nostradamus or the Lost Ten Tribes of Israel.

**T**HUS, INVENTION has been with us since the Pleistocene and is a fairly ubiquitous human phenomenon; but until fairly recently, its connection with science was slight. Science in the sense of speculation about natural laws goes back to primitive magic. But such "science" accomplished little of definite worth. Science almost separated itself from magic in the Hellenistic Age, but failed to do so. Then, begin-

ning about four centuries ago, science became increasingly allied with invention and increasingly separated from magic. This development was made possible by development of the scientific method and by the fact that inventors provided scientists with powerful new tools of research.

This "science" is quite different from that of Plato and Ug, though it grew out of the latter. Unfortunately it seems destined to be an even more esoteric system than the magic, whose place it has taken—not because it is kept secret, but because its pursuit requires a degree of intellectuality beyond the abilities or tastes of most human beings.

Much primitive magic has been destroyed by the expansion of the European peoples. Civilized magic continues, somewhat withered and apologetic. However, there is a lot of life in it still, as anybody can see from the advertisements of cult meetings, horoscope readings, and other manifestations of the higher wisdom.

While science is triumphant, nearly all the human race will continue to use analogistic and other pre-scientific methods of thought for everyday affairs. So far they have proved adequate for continuation of the species. A method that works most of the time, and can be used by everybody, is a better survival-factor than a method that works all the time, but can be used by only one man in fifty. Whether this will continue to be true in the Atomic Age remains to be seen.





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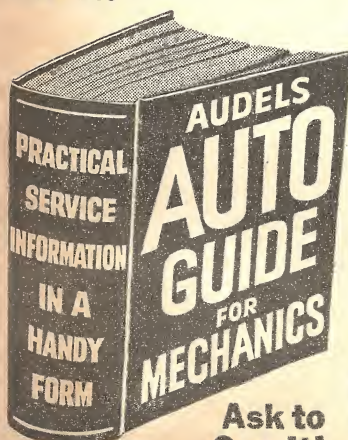
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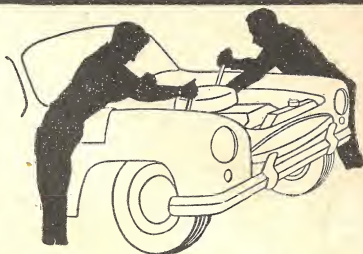


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